



FACILITY REPAIRS & MODIFICATIONS, BUILDING 150

**MCAS CHERRY POINT
NORTH CAROLINA**

PROJECT CNN-11007

DESIGN-BUILD REQUEST FOR PROPOSAL

18 May 2011



Facility Repairs & Modifications, Building 150
MCAS Cherry Point NC

CNN-11007

18 May 2011

SMALL PROJECT TABLE OF CONTENTS

02/10

- Part 1 Proposal Forms and Documents (Not Used)**
 - Part 2 General Requirements**
 - Part 2, Attachment A Project-Specific General Requirements**
 - Part 3 Statement of Work / Project Program**
 - Part 4 Minimum Materials, Engineering and Construction Requirements**
 - Part 5 Prescriptive Technical Specifications (Not Used)**
 - Part 6 Attachments**
-

Preface

This Request for Proposal (RFP) consists of six parts. Part 1 contains typical contractual forms, procedures, bidding instructions, bond information, clauses and wage decisions. Part 2 contains general contract administrative and execution requirements including, but not limited to safety, design criteria & process, quality control, security, schedule, invoicing, temporary facilities, and design and construction oversight processes. Part 2, Attachment A, contains project-specific general requirements that may either modify and/or supplement the corresponding standard paragraphs in the Part 2 "General Requirements" section. Part 3 lists the project requirements, specific scope items, and expected quality level above and beyond those outlined in Part 4. Part 4 contains Performance Specifications and minimum quality requirements. Part 5, prescriptive specifications, is typically not used in this Small Project format. Part 6 contains background project information, references, and other project-specific requirements.

Small Project Part 2 General Requirements

02/10

1. **DEFINITIONS:** As used throughout the contract, the following terms shall have the meaning set forth below:

Contracting Officer (KO): The individual designated to administer the contract. Throughout this contract this individual will be responsible and possess the authority to act on behalf of the Government with respect to the specific contract.

Contracting Officer Representative (COR): The individual designated by the Contracting Officer as the authorized representative of the Contracting Officer. The COR is responsible for monitoring performance and technical management of the effort required and should be contacted regarding questions or problems of a technical nature.

Contractor: The term Contractor refers to both the prime Contractor and subcontractors, including the Designer of Record.

Designer of Record (DOR): Licensed architect/engineer working as subcontractor to or partner with prime Contractor who provides design for this contract.

Quality Control (QC): Contractor's system to control the quality of design, material, equipment and construction.

Quality Assurance (QA) Program: Government's program to evaluate the effectiveness of the Contractor's quality control. The Government's QA Program is not a substitute for the Contractor's QC Program.

Federal Holidays: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Independence Day; Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day.

Contract: Contract or task order.

2. **ORDER OF PRECEDENCE:** NFAS Clause 5252.236-9312. In the event of conflict or inconsistency between any of the below described portions of the confirmed contract, precedence shall be given in the following order:

- a. Any portions of the proposal or final design that exceed the requirements of the solicitation.
 - 1) Any portion of the proposal that exceeds the final design.
 - 2) Any portion of the final design that exceeds the proposal.
 - 3) Where portions within either the proposal or the final design conflict, the portion that most exceeds the requirements of the solicitation has precedence.
- b. The requirements of the solicitation, in descending order of precedence:
 - 1) Standard Form 1442, Price Schedule, and Davis Bacon wage rates.
 - 2) Part 1 – Contract Clauses.
 - 3) Part 2 – General Requirements.
 - 4) Part 3 – Statement of Work/Project Program Requirements.

- 5) Part 6 – Attachments (excluding Concept Drawings).
- 6) Part 5 – Prescriptive Specifications, exclusive of performance specifications.
- 7) Part 4 – Minimum Materials, Engineering and Construction Requirements, exclusive of prescriptive specifications.
- 8) Part 6 – Attachments (including Concept Drawings).

3. **POST AWARD KICKOFF MEETING (PAK):** Prior to commencement of design, and within 21 calendar days of award, meet with representatives of the Contracting Officer, installation and client to present the concept design for discussion and acceptance. The project team will develop a mutual understanding relative to the approved proposal, safety program, environmental permits and requirements, quality control procedures, and design and construction schedule. During the meeting, Contractor shall propose and gain acceptance for any critical path work activities requiring advance submittal and approval. If the contract includes work on any fire protection system, including fire alarm and mass notification systems, the Contractor and the appropriate DOR shall meet with the NAVFAC Fire Protection Engineer (FPE) to establish clear expectations of fire protection requirements of the project.

The Contractor's key personnel shall attend at the expense of the Contractor. Key personnel are defined as the Project Manager, Superintendent, CQC representative(s), DOR, major subcontractors and specialized supplementary personnel.

The PAK includes partnering, held during normal work hours with the non-labor-related costs shared by both parties. Partnering is a structured process, as well as philosophy of doing business with Contractors and clients that recognizes common goals through communication and teamwork. It helps create an environment where trust and teamwork prevent disputes, foster good working relationships to everyone's benefit, and facilitate the completion of a successful contract. If included in Attachment A, a Performance Assessment Plan that provides monthly performance feedback to the Contractor, will be discussed during the partnering session.

Key personnel will meet to identify strategies to ensure the project is carried to expeditious closure and turnover to the Client. Start the turnover process at the PAK Meeting utilizing the NAVFAC Red Zone (NRZ) Checklist and convene the Facility Turnover Meetings once the project has reached approximately 75% completion or 3 to 6 months prior to Beneficial Occupancy Date (BOD), whichever comes first. The Contracting Officer's Representative will lead the meetings and guide the discussions based on an agenda provided by the Government. The Facility Turnover effort shall fill in the NRZ Checklist including Contractor, Client, and NAVFAC Checklist Items and assign a person to be responsible for each item and a due date. The Contracting Officer's Representative will facilitate the assignment of responsibilities and fill out the NRZ Checklist. The Contracting Officer's Representative shall develop a Plan of Action and Milestones (POAM) for the completion of all Contractor, Client, and NAVFAC Checklist items.

4. **DESIGN:** Design is the work necessary to ensure functionality, quality, and safety for critical facets of the project. Special coordination requirements, such as for phone, LAN and cable, are included in Attachment A.

- a. Provide work in compliance with the following design standards and codes, as a minimum. Government standards listed in this RFP take precedence over industry standards.

This RFP references published standards, the titles of which can be found in the Unified Master Reference List (UMRL) on the Whole Building Design Guide at the Unified Facilities Guide Specification (UFGS) Website. The publications referenced form a part of this specification to the extent referenced.

The advisory provisions of all codes, requirements, and standards shall be mandatory; substitute words such as “shall”, “must”, or “required” for words such as “should”, “may”, or “recommended,” wherever they appear. The results of these wording substitutions incorporate these code and standard statements as requirements. Reference to the “authority having jurisdiction” shall be interpreted to mean “Contracting Officer”. Comply with the required and advisory portions of the current edition of the standard at the time of contract solicitation.

The following list of codes and standards is not comprehensive and is augmented by other codes and standards referenced and cross-referenced in the RFP. Refer to Parts 3 and 4 for specific requirements within other UFC's.

- a) UFC 1-200-01, *General Building Requirements*
 - b) UFC 1-300-08, *Criteria for Transfer and Acceptance of Military Real Property*
 - c) UFC 1-300-09N, *Design Procedures*
 - d) UFC 3-560-01, *Electrical Safety, O&M*
 - e) UFC 3-600-01, *Fire Protection Engineering for Facilities*
 - f) UFC 3-600-10N, *Fire Protection Engineering*
 - g) UFC 3-800-10N, *Environmental Engineering for Facility Construction*
 - h) UFC 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*
 - i) UFC 4-020-01, *Security Engineering: Facilities Planning Manual*
- b. Provide professional registration and design signing and stamping requirements per requirements of UFC 1-300-09N, *Design Procedures*.
 - c. See Attachment A for project-specific submittal requirements.

5. **FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS:** Work shall comply with applicable criteria identified herein and Attachment A. Any project including work on means of egress, fire rated elements, Fire Suppression, Mass Notification, or Fire Alarm Systems shall require the services of a Registered Fire Protection Engineer per Attachment A.

- a. Final Life Safety/Fire Protection Certification Documentation: Unless otherwise specified in Attachment A, provide certification that all life safety and fire protection features and systems have been installed in accordance with applicable criteria, the contract documents, approved submittals, and manufacturer's requirements. This certification shall summarize all life safety and fire protection features.

6. **QUALITY CONTROL:** Maintain quality control for and inspect all work under the contract. The DOR, as a member of the Contractor QC organization, shall remain directly involved during the construction process. For certain projects, the Quality Control Manager, Superintendent, and Site Safety and Health Officer may be combined – see paragraphs 6 and 34 in Attachment A. Further QC requirements are identified in Attachment A.

- a. Submit a QC Plan for Government review and acceptance. The QC plan shall include the following:
 - 1) NAMES, QUALIFICATIONS and RESPONSIBILITIES: For each person in the QC organization (design and construction).
 - 2) OUTSIDE ORGANIZATIONS: Outside organizations, including architectural and consulting engineering firms and a description of the services these firms will provide.
 - 3) INITIAL SUBMITTAL REGISTER (DESIGN & CONSTRUCTION): Include submittal reviewer, estimated date of delivery, and identify which design submittals require Government approval prior to construction, and which construction submittals require DOR or Government approval prior to construction.
 - 4) TESTING LABORATORIES: Accredited laboratories as applicable.
 - 5) TESTING PLAN AND LOG: Tests required, referenced by specification paragraph number requiring the test, frequency, and person responsible for each test.
 - 6) LIST OF DEFINABLE FEATURES: A Definable Feature of Work (DFOW) is a task, which is separate and distinct from other tasks, and has the same control requirements and work crews.
 - 7) COMMUNICATION PLAN: Provide a plan for key decisions and possible problems the Contractor and Government may encounter during the design phase of the project. Communication Plan shall indicate the frequency of design meetings and what information is covered in those meetings, key design decision points tied to the Network Analysis Schedule and how the DOR plans to include the Government in those decisions, peer review procedures, interdisciplinary coordination, design review procedures, and comment resolution.
- b. QC Manager Responsibilities:
 - 1) Participate in the Post Award Kick-off, Partnering, Design Development and Coordination Meetings and Production Meetings.
 - 2) Ensure that no construction begins before the DOR has signed and stamped the design for that segment of work, and design and construction submittals are approved as required in Attachment A and the QC Plan.
 - 3) Immediately stop any work that does not comply with contract plans and specifications, and direct the removal and replacement of any defective work.
 - 4) Prepare QC Reports.
 - 5) Hold biweekly QC meetings with DOR, Superintendent and Government technical team; participation shall be suitable for the phase of work.
 - 6) Ensure that safety inspections are performed. Attend weekly Toolbox meetings.
 - 7) Maintain submittal log.
 - 8) Maintain updated as-built drawings on site.
 - 9) Maintain testing plan and log. Ensure that all testing is performed per contract.
 - 10) Maintain deficiency log on site, noting dates deficiency identified, and date corrected.

- 11) Certify and sign statement on each invoice that all work to be paid under the invoice has been completed in accordance with contract requirements.
 - 12) Perform Punch-out and Pre-final inspections, and participate in Final Inspections. Establish list of deficiencies; correct prior to the Final inspection.
 - 13) Ensure that all required keys, operation and maintenance manuals, warranty certificates, and the As-built drawings are submitted to the Contracting Officer.
- c. Use the Three Phases of Control process for construction QC.
- 1) Preparatory Phase: Review all applicable documents for compliance with all applicable laws, codes, regulations, and the requirements of the contract, including contract drawings and specifications. Determine requirements for testing and certification. Review submittal approvals for materials, equipment, shop drawings, and applicable methods of construction and installation. Include all Preparatory Phase items in the QC Report.
 - 2) Initial Phase: Observe and inspect the initial portion of the work performed under a DFOW to establish the quality of the workmanship, resolve conflicts in construction, ensure that testing is done and certified as required, and to check all work procedures to ascertain the work is in conformance with required safety requirements. Record and report nonconforming work and work not of acceptable quality and requiring correction or rework. Include all Initial Phase items, along with initial phase checklist and, in the QC Report.
 - 3) Follow-Up Phase: Occurs at the completion of each DFOW. Ensure the work is in compliance with contract requirements, quality of workmanship for all work is maintained, and all work performed meets safety requirements. Include all Follow-Up Phase items, including date, in the QC Report.
- d. The QC Manager must possess a current certificate showing successful completion of the NAVFAC Contractor Quality Management (CQM) Training.
7. **SUBMITTAL PROCESS:** Provide to the Government submittals as listed. See Paragraph 4, DESIGN, and Attachment A for specific design and construction submittal format and approval and surveillance requirements. Design drawings may be prepared more like shop drawings to minimize construction submittals after final designs are approved. Therefore, the Contractor is encouraged to prepare and submit with the design drawings, appropriate connection, fabrication, layout, and product specific drawings.
- a. QC Plan, prior to Design/Construction (may be phased).
 - b. Design and construction submittals, prior to construction, approved IAW QC Plan, The DOR or QC Specialist is the approving authority for submittals unless otherwise indicated in Attachment A.
 - c. DOR-approved design and construction submittals identified in Attachment A for Government surveillance (typically Fire Protection system and Life Safety submittals). Stamp the submittals "FOR SURVEILLANCE ONLY." Submit Surveillance submittals to the Government prior to starting work for that item. Submittals required for surveillance will be returned only if corrective actions are required.
 - d. Material Safety Data Sheets (MSDS) as applicable.
 - e. Schedule: Provide detailed design schedule and preliminary construction schedule, due prior to PAK.
 - f. Environmental Protection Plan, prior to start of the work.

- g. Contractor Safety Self-Evaluation Checklist.
 - h. Accident Reports – submit if incidence occurs.
 - i. Safety Submittals: Per Paragraph 34 and Attachment A, prior to construction.
 - j. Schedule of Prices, initial due 21 calendar days after award and a detailed due prior to construction.
 - k. Budget Management Summary: Per Attachment A.
 - l. Record Drawings, due at Beneficial Occupancy
 - m. Operation and Maintenance Information: Per Paragraph 23, Part 2 Attachment A, and Part 4. Due prior to testing as applicable, no later than 30 calendar days before Beneficial Occupancy.
 - n. Licenses and Permits: Per Attachment A and Part 4.
 - o. DD Form 1354: For all new construction, demolition, and any construction on an existing facility that adds new parts, items, or systems that are not maintenance or repair; e.g. replacement of windows, replacement of roofs, replacement of an exterior utility, adding an AC system, adding exterior lighting, the DOR shall prepare DD Form 1354 TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY, in accordance with UFC 1-300-08, available at http://65.204.17.188/report/doc_ufc.html. Submit form for Government approval a minimum of 30 calendar days prior to final acceptance of work.
8. **SUPERVISION:** The Contractor shall have a supervisor fluent in English on the job site during working hours. Additional requirements per Attachment A.
9. **SCHEDULE:** Provide Design and Construction Schedule adequate for Contractor to efficiently manage project and for Government to efficiently manage QA and scheduling interfaces. Include construction phasing and any work restrictions (such as occupied spaces, special hours, potential work disruptions). Schedule shall contain DFOWs and dates for completion of each task including material procurement, and construction activities. Update the schedule at least monthly; use 3-week look-ahead for each QC meeting.
10. **BUDGET MANAGEMENT:** The Contractor shall be responsible for budget management throughout the entire project. It is the intent of the Government to partner with the Contractor to maximize project value while strictly controlling contract modifications and maintaining overall fiscal control. When required in Attachment A, develop a Budget Management System for each phase of the design.
11. **PRECONSTRUCTION CONFERENCE:** Prior to construction or demolition start, meet with representatives of the Contracting Officer to discuss and develop mutual understanding relative to administration of the safety programs, environmental issues, safety of building occupants and surrounding area, hazardous materials, waste disposal, construction QC procedures, construction schedule, labor provisions and other construction phase contract procedures. The Preconstruction Conference shall reinforce partnering philosophy initially established during the PAK.
12. **ACCESSIBILITY:** Barrier-free design should be in accordance with the requirements of the Federal Accessibility Standards (UFAS) as required by 42 U.S.C. 4151-4157, Architectural Barriers

Act (ABA) of 1968, and consistent with 29 U.S.C. 794, *Rehabilitation Act of 1973*, but also meet the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Use the criteria that provide the greatest barrier-free design requirements. The soon to be released DOD Accessibility Standards will implement the US Access Board's update of the ABA and ADA guidelines and supersede the requirements noted above.

13. **CONTRACTOR'S PRODUCTION REPORTS:** Submit Contractor Production Reports on forms furnished for this purpose. Complete the reports weekly unless otherwise requested by the Contracting Officer. Reports shall include:
- a. Worker hours by classification, move-on and move-off of construction equipment furnished by the prime, subcontractor or the Government, and materials and equipment delivered to the site.
 - b. Safety meetings, checks and inspections.
 - c. Disposition of Construction Waste Material: Per Environmental Protection Plan.
 - d. Design and Construction Services: Including, but not necessarily limited to:
 - 1) Check all Contract Documents for correctness and correlation. If the Contractor notes any discrepancy or ambiguity, immediately notify the COR.
 - 2) Examine the work site as to conditions affecting the work. Field verify the site and scope of work, including but not limited to the measurement and location of all significant items required to perform the work. Failure by the Contractor to familiarize oneself with available information regarding these conditions shall not relieve the Contractor from the responsibility of successfully completing the work.
14. **SCHEDULE OF PRICES:** Submit on forms furnished by the Government. The initial schedule of prices may be preliminary for construction activities until the design is developed. Include a detailed breakdown of the contract price, with quantities for each kind of work. Include General Conditions, profit, and overhead in the unit prices. Break down into design and each construction category if stated in Attachment A. The Contractor may invoice for bonds once the Government has approved the bonds, however, no other requests for payment will be processed without an approved Schedule of Prices.
15. **CONTRACTOR INVOICES:** Contractor requests for payment shall conform and will be processed in accordance with the requirements of FAR 52.232-5 and FAR 52.232-27.
- a. Content of Invoice: Requests for payment in accordance with the terms of the contract shall consist of the following: (If NFAS Clause 5252.232-9301 is present in the contract, documents shall be provided as attachments in Wide Area Workflow (WAWF). The maximum size limit per attachment is less than 2 megabytes, but you may have an unlimited number of attachments. If a document cannot be attached to WAWF due to system or size restrictions it shall be provided as instructed by the contracting officer). If NFAS Clause 5252.232.9301 is not present in the contract, follow the invoicing instructions provided in the contract.
 - 1) Contractor's Invoice on NAVFAC Form 7300/30, which shall show, in summary form, the basis for arriving at the amount of the invoice.
 - 2) Contractor's Monthly Estimate for Voucher (LANTNAVFACECOM Form 4-4330/110 (New 7/84)), with subcontractor and supplier payment certification.

- 3) Affidavit to accompany invoice (LANTDIV NORVA Form 4-4235/4 (Rev. 5/81)).
 - 4) Updated copy of submittal register.
 - 5) Updated copy of progress schedule. Furnish as specified in "FAR 52.236-15, Schedules for Construction Contracts."
 - 6) Network mathematical analysis.
 - 7) Contractor Safety Self Evaluation Checklist (original)
 - 8) Final release (for final payment only)
- b. Payment:
- 1) Payment will be made on Contractor's submission of itemized requests and will be subject to reduction for overpayments or increased for underpayments from previous payments. The Government may withhold payment or reduce payments for the following:
 - a) Defects in material or workmanship.
 - b) Claims the Government may have against the Contractor under or in connection with this contract.
 - c) Contractor's failure to submit an updated schedule.
 - d) Payroll violations.
 - e) Unless otherwise adjusted, repayment to the Government upon demand for overpayments made to the Contractor.
 - 2) Payments may be made for materials, stored off construction sites, under the following conditions:
 - a) Conditions described in Attachment A.
 - b) Materials adequately insured and protected from theft and exposure.
 - c) Materials not susceptible to deterioration or physical damage in storage or in transit to the job site are acceptable for progress payments. Items such as steel, machinery, pipe and fittings and electrical cable are acceptable, but items such as gypsum board; glass, insulation and wall covering are not.
 - d) Materials in transit to the job or storage site are not acceptable for payment.
 - e) Conditions specified in FAR 52.232-5(b) Payments Under Fixed Price Construction Contracts.

16. **PROTECTION OF GOVERNMENT PROPERTY:** Take special care to protect Government property. Return areas damaged as a result of construction under this contract to their original condition. In addition to FAR 52.236-9, *Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements*, perform the following:

- a. Remove or alter existing work or facilities in such a manner as to prevent injury or damage to any portion of the existing work or facilities that remain.
- b. Repair or replace portions of existing work altered during construction operations to match existing or adjoining work, as approved by the Contracting Officer. At the

completion of operations, existing work shall be in a condition equal to or better than that which existed before new work started.

- c. Preserve the natural resources in accordance with the approved environmental protection plan.

17. **EXISTING UNDERGROUND UTILITIES:** Verify on-site utilities and have them marked out by a utility locator service prior to the start of construction. Where existing piping, utilities, oil and gas lines, and underground obstructions of any type that are to remain are indicated in locations to be traversed by new piping, ducts, and other work provided herein, and such are not indicated or specified to be removed, the elevations of the existing utilities and obstructions shall be determined before the new work is laid closer than the nearest manhole or other structure at which an adjustment in grade could be made. Obtain required dig permits and notify the Contracting Officer 21 calendar days prior to any excavation. Refer to Attachment A for specific station requirements.

18. **LICENSES/PERMITS:** Obtain all appointments, licenses, and permits required to perform work under this contract at no additional expense to the Government. See "Permits Record of Decision" (PROD) form for list of permits. Comply with all applicable federal, state, and local laws, and base regulations and procedures. Provide evidence of such permits and licenses to the Contracting Officer before work commences and at other times as requested by the Contracting Officer (see FAR 52.236-7, *Permits and Responsibilities*). Coordinate permit applications with Navy or local environmental office.

The contractor shall submit a complete PROD form with the first design submittal package. A blank PROD form can be obtained at the Download Tab of Part 6 of the NAVFAC Design-Build website at the following link <http://www.wbdg.org/ndbm/Download/Download.html?Tab=Download>. Contractor shall determine correct permit fees and pay said fees. Copies of all permits, permit applications, and the completed PROD form shall be forwarded to the Government's Civil Reviewer and Environmental Reviewer.

Contractor is exclusively responsible for his full compliance with patent laws and shall affirm that the company is licensed to use equipment and processes the company shall employ in this project.

19. **CONTRACTOR WORK SITE:** Limit use of the premises for work and for storage of material and equipment associated with the contract. Unless otherwise specified or separately agreed to, Government owned material handling equipment, transportation equipment or general tools will not be available for Contractor's use. Clean work area daily and after completion of the work, removing all loose debris and disposing of all non-permanent materials IAW the contractor's Waste Management Plan.

- a. **Temporary Facilities:** The Contractor may provide his own office facilities; coordinate and obtain advance approval from the Contracting Officer.
- b. **Contractor-Furnished Equipment:** Equipment is subject to the inspection and approval of the Contracting Officer, prior to and during the life of the contract. All equipment and vehicles shall display readily visible Contractor identification markings. Relocate stored Contractor equipment which may interfere with operations of the Government or with others on-site.
- c. **Contractor-furnished Material:** Protect and secure products stored at this site.
 - 1) All replacement units, parts, components, and materials to be used in the maintenance, repair and alteration of facilities and equipment shall be new and

compatible with the existing equipment on which it is to be used, and shall comply with applicable Government, commercial, or industrial standards such as Underwriter's Laboratories, Inc., and National Electrical Manufacturers Association.

20. TEMPORARY UTILITIES:

- a. The Government will provide water and power in reasonable quantities at the prevailing rates.
- b. All labor, material, and equipment necessary to affect temporary utility tie-ins, including transformers if necessary, shall be at the expense of the Contractor and under the surveillance of the Contracting Officer.
- c. The Contractor shall be responsible for any damages to Government, private or public facilities and property that may result from the installation and removal of these temporary utility tie-ins. Corrections and repairs shall be made at the Contractor's expense.
- d. The actual location and installation of the temporary tie-in, together with any interruptions of utilities systems, shall be identified and approved by the Contracting Officer prior to execution. Notify the COR and Station Utilities 15 calendar days prior to any tie-ins.
- e. Permanent utility systems, when indicated, will be available for tie-in.
- f. Telephone and Data Service: Make arrangements with local telephone company, NMCI and other pertinent base communication departments.
- g. Maintain utility services to existing facilities surrounding the site at all times during construction.

21. ENVIRONMENTAL CONTROLS AND PROTECTION

Unforeseen Hazardous Conditions: Do not disturb hazardous materials and report condition immediately to the Contracting Officer potentially hazardous conditions that are uncovered or the Contractor becomes aware of that have not been identified in the RFP. This includes hazardous components and materials and contamination (see UFC 3-800-10 for more information). This includes conditions that are not only hazardous to humans but wildlife, marine life and the environment. Stop work in the area of the questionable material or condition until identification and direction is provided.

22. WASTE MANAGEMENT: Develop a Waste Management Plan that identifies all recyclable material and disposal methods for all material. Contractor shall reduce, recycle or salvage as much waste material as possible with a goal of diverting at least 50% of construction waste from landfill. Address waste reduction, recycling and salvage as part of the waste management plan. Report volume or weight of disposed and recycled materials. The Contractor is responsible for removing and disposing of all waste materials generated. Consider all material recyclable or reusable, unless clearly demonstrated the material requiring disposal is waste material.

23. RECORD DRAWINGS AND OPERATION & MAINTENANCE (O&M) DATA: Furnish hard copy and electronic format for all as-built and O&M information. Record drawings shall incorporate

all changes to the approved final design. Provide O&M data for as-built products, materials, and equipment, including data sheets, test reports, warranties, certificates, list of spare parts suppliers for all pieces of equipment, and approved construction submittals. Refer to Attachment A.

24. **WARRANTY:** Warrant all materials and work for not less than one year after final acceptance of the work, except as otherwise indicated in this RFP. If required to provide remedial repair of previously installed work due to latent defect or unacceptable work performance, warrant the repaired work for one year after the completion and acceptance of the repair. For warranted items, furnish the manufacturers' original written warranty accompanied by a copy of the supplier's receipt showing place of purchase, telephone number of supplier, address, delivery order number if applicable, and ticket number.

25. **PERFORMANCE EVALUATIONS:** The evaluation will take into account all aspects of the Contractor's performance, including evaluations from Performance Assessment Plans when included in Attachment A. Performance evaluations may be completed any time during the contract. The Government will provide a copy of the performance evaluation and an opportunity to discuss the evaluation. The performance evaluations will have an impact on the award of future contracts.

26. **WORK HOURS, ACCESS AND PASSES:** All Contractor employees, including subcontractors, and subcontractors' employees, suppliers, and suppliers' employees shall be required to comply with the Installation Security Requirements regarding personnel, vehicle, and equipment security passes and access the jobsite. Nothing in the contract shall be construed in any way to limit the authority of the Commanding Officer to prescribe new, or to enforce existing security regulations governing the admission or exclusion of persons and the conduct of persons while aboard the station, including but not limited to, the rights of search of all persons or vehicles aboard the station.

Coordinate with the Contracting Officer for specific security and access requirements.

- a. **Access to Buildings/Occupied Buildings:** The Contractor may work in or around existing occupied buildings. The Contractor is responsible, via the Contracting Officer, to obtain access to building and facilities and arrange for them to be opened and closed. Do not enter the building(s) without prior approval of the Contracting Officer. Keep the existing buildings and their contents secure at all times. Provide temporary closures as required to maintain security. Contract personnel will not be permitted in security-regulated buildings or areas unless cleared by the Security Officer.
- b. **Passes and Badges:** Contractor employees and representatives performing work under this contract are required to be either United States citizens or documented legal residents (status verified by prime contractor). All Contractor employees shall obtain the required employee and vehicle passes. Each employee shall wear the Government issued badge over the front of the outer clothing. Failure to obtain security and base access passes shall not be a cause for contract performance time extension. The Contractor shall immediately turn in all terminated employee's badges to the issuing office.
 - 1) Personnel will be issued appropriate identification badges when the Contractor submits, in writing on company letterhead, a list indicating that all individuals are bona fide employees. Employees shall complete questionnaires and other forms as required for security. Allow 14 calendar days for background checks and processing. The list shall contain the following information:

- f) Name of employee
 - g) Social Security Number
 - h) Date of Birth
 - i) Place of Birth
 - j) Citizenship, Statement of (U.S.) or proof of documented legal residency
 - k) Employment Eligibility Verification Form (DHS FORM I-9). This form is available at <http://uscis.gov/graphics/formsfee/forms/files/I-9.pdf>
- c. Contractor Vehicles: All vehicles shall display a valid state license plate and safety inspection sticker, if applicable, and shall be maintained in good repair. The company name shall be displayed in a clearly visible manner and size on each Contractor vehicle used in the course of work. Registration, proof of insurance and driver's licenses are required to obtain a station vehicle pass.
- d. Work Hours: Unless otherwise indicated, work will be located on a Government compound, military installation, or station. Contractor work hours shall be between 0630 and 1700 Monday through Friday, or as indicated in Attachment A. Obtain advance approval from the Contracting Officer for Contractor personnel to remain on site beyond normal working hours. Notify the Contracting Officer at least 48 hours in advance to obtain approval for access to the jobsite or work outside of normal working hours or on Saturday, Sunday, and Federal Holidays.
- e. Contractor Personnel: Provide the Contracting Officer the name(s) of the supervisory person(s) authorized to act for the Contractor. Provide, and update as required, a list of the key personnel for the Contractor and subcontractors including addresses and telephone numbers for use in the event of an emergency.
- f. Contractor employees shall conduct themselves in a proper, efficient, courteous and businesslike manner. Remove from the site any individual whose continued employment is deemed by the Contracting Officer to be contrary to the public interest or inconsistent with the best interests of National Security.

27. **SECURITY REQUIREMENTS:** All security requirements apply to all subcontractors and suppliers associated with this contract. Special or extraordinary security requirements are identified in Attachment A. In addition to special or extraordinary security requirements, comply with the following:

- a. Do not publicly disclose any information concerning any aspect of the materials or services relating to this contract, without prior written approval of the Contracting Officer.
- b. Do not disclose or cause to be disseminated any information concerning the operations of the activity's security or interrupt the continuity of its operations.
- c. Do not disclose any information to any person not entitled to receive it. Failure to safeguard any classified information that may come to the Contractor or any person under his control, may subject the Contractor, his agents or employees to criminal liability under 18 U.S.C., Sections 793 and 798.
- d. Direct to the Contracting Officer and or Installation Security Officer for resolution all inquiries, comments or complaints arising from any matter observed, experienced, or learned as a result of or in connection with the performance of this contract, the resolution of which may require the dissemination of official information.

- e. Coordinate photography requirements with the Contracting Office. Some areas restrict or prohibit photographing Government property.

Deviations from or violations of any of the provisions of this paragraph, will, in addition to all other criminal and civil remedies provided by law, subject the Contractor to immediate termination for default and withdrawal of the Government's acceptance and approval of employment of the individuals involved.

28. **REQUIRED INSURANCE:** Within 15 calendar days after award, furnish the Contracting Officer a Certificate of Insurance as evidence of the following insurance coverage amounts not less than the amount specified below in accordance with FAR Clause 52.228-5, *Insurance Work On A Government Installation*:

- a. Comprehensive General Liability: \$500,000 per occurrence.
- b. Automobile Liability: \$200,000 per person, \$500,000 per occurrence for bodily injury; \$20,000 per occurrence for property damage.
- c. Worker's Compensation: As required by Federal and State Worker's compensation and occupational disease and other laws.
- d. Employer's Liability Coverage: \$100,000, except in states where worker's compensation may not be written by private carriers.
- e. Others as required by state law.
- f. Above insurance coverages are to extend to Contractor personnel operating Government owned equipment and vehicles.
- g. The Certificate of Insurance shall provide for 30 calendar days written notice to the Contracting Officer by the insurance company prior to cancellation or material change in policy coverage. Other requirements and information are contained in Attachment A.

For projects which require removal of asbestos containing materials the Asbestos Contractor or Subcontractor, as the case may be shall provide occurrence-based liability insurance with asbestos coverages in an amount not less than \$1,000,000 and shall name the Government and PQP as additional insureds.

29. **PROPRIETARY RIGHTS:** All field notes, design drawings, specifications, and other documents collected and produced as part of this contract shall be considered property of the Government. These data shall not be used, in whole or part, published or unpublished, as a part of any technical or non-technical presentation without written pre-approval of the Contracting Officer.

30. **GOVERNMENT FURNISHED MATERIAL AND EQUIPMENT:** If applicable, the Government will furnish the materials and equipment for installation by the Contractor pursuant to contract clause FAR 52.245-2, *Government Property (Fixed Price Contracts)*. Notify the Contracting Officer in writing at least 15 calendar days before the materials and equipment are required. Pick up materials and equipment no later than 30 calendar days after such date. When materials and equipment are not picked up by the 30th day, the Contractor will be charged for storage at the prevailing rate. The Contracting Officer will specify the location of materials and equipment and the delivery location.

31. **ORAL MODIFICATION:** No oral statement by any person other than the Contracting Officer, as provided in the contract clause entitled, "CHANGES AND CHANGED CONDITIONS," will in any manner or degree modify or otherwise affect the terms of this contract.

32. **NO WAIVER BY THE GOVERNMENT:** The failure of the Government in any one or more instances to insist upon strict performance to any of the terms of this contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon such terms or options on any future occasion.

33. **EQUITABLE ADJUSTMENTS – WAIVER AND RELEASE OF CLAIMS:**

- a. Whenever the Contractor submits a claim for equitable adjustment under a clause which provides for equitable adjustment of the contract, such claim shall include all types of adjustments in the total amounts to which the clause entitles the Contractor, including, but not limited to, adjustment arising out of delays or disruptions.
- b. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived: (1) any adjustments to which he otherwise might be entitled under the clause where such claim fails to request such adjustments; and (2) any increase in the amount of equitable adjustments additional to those requested in its claim.
- c. The Contractor agrees that, if required by the Contracting Officer, it shall execute a release, in form and substance satisfactory to the Contracting Officer, as part of the supplemental agreement setting forth the aforesaid equitable adjustment. The Contractor further agrees that such release shall discharge the Government, including its officers, agents, and employees, from any further claims, including, but not limited to, further claims arising out of delays or disruptions caused by the aforesaid change.

34. **SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS:**

- a. References: The publications listed below form a part of this specification to the extent referenced. Use current version of referenced requirements at the time of contract solicitation. The publications are referred to within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z359.1, *Safety Requirements for Personal Fall Arrest System, Subsystems and Components*

ANSI A10.32, *Fall Protection systems for Construction and Demolition Operations*

ANSI A10.6, *Demolition Operations*

ANSI Z9.2, *Fundamentals Governing the Design and Operation of Local Exhaust Systems*

ANSI Z88.2, *Respiratory Protection*

ANSI Z358.1, *Emergency Eyewash and Shower Equipment*

ASME INTERNATIONAL (ASME)

ASME B30.22, *Articulating Boom Cranes*

ASME B30.3, *Construction Tower Cranes*

ASME B30.5, *Mobile and Locomotive Cranes*

AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM)

ASTM Standards on Lead-Based Paint Abatement in Buildings

ASTM E 1368, *Visual Inspection of Asbestos Abatement Projects*

DEPARTMENT OF DEFENSE (DoD)

MIL-STD-1472F, Military Standard, *Human Engineering Design Criteria for Military Systems, Equipment and Facilities*
DoD-HDBK 743A, *Anthropometry of US Military Personnel*

DEFENSE LOGISTICS AGENCY (DLA)

DLA 4145.25, *Storage and Handling of Compressed Gases and Liquids in Cylinders*

EPA Standards and Documents – General

15 U.S.C. 2601 – *Toxic Substances Control Act*
EPA Title X – *The Residential Lead Based Paint Hazard Reduction Act*
EPA & HUD – *Lead Safe Work Practices*
HUD Guidelines, *Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing*

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241, *Safeguarding Construction, Alteration, and Demolition Operations*
NFPA 51B, *Fire Prevention During Welding, Cutting, and Other Hot Work*
NFPA 70, *National Electrical Code*
NFPA 70E, *Electrical Safety in the Workplace*

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 Safety -- *Safety and Health Requirements*

UNITED FACILITIES CRITERIA (UFC)

UFC 3-560-01, *Electrical Safety, O&M*

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 *Occupational Safety and Health Standards*
29 CFR 1910.146 *Permit-required Confined Spaces*
29 CFR 1915 *Occupational Safety and Health Standards for Shipyard Employment*
29 CFR 1926 *Safety and Health Regulations for Construction*

b. Submittals: A "G" following a submittal indicates that Government approval action is required.

- 1) Contractor Accident Prevention Plan (APP), comply with EM 385-1-1, Appendix A; G
- 2) Contractor Safety Self-Evaluation Checklist; G
- 3) Monthly Work-Hour Reports
- 4) Crane Critical Lift Plan; G
- 5) Accident Reports – submit if incidence occurs.
- 6) Activity Hazard Analyses, as applicable.

- c. **Weight Handling Equipment (WHE) Accident:** A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over).
- d. **Contractor Safety Self-Evaluation Checklist:** Contracting Officer will provide a "Contractor Safety Self-Evaluation checklist" to the Contractor. Complete the checklist monthly and submit with each request for payment. A score of 90 or greater is required. Failure to submit the completed safety self-evaluation checklist or achieve a score of at least 90, will result in a retention of up to 10 percent of the voucher.
- e. **Regulatory Requirements:** In addition to the detailed requirements included in this contract, work performed shall comply with USACE EM 385-1-1, and the laws, ordinances, criteria, rules and regulations included in Attachment A. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply. UFC 3-560-01 takes precedence over all other guidance for electrical safety.
- f. **Site Safety and Health Officer (SSHO) Qualifications & Duties:** SSHO shall perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The assignment of the SSHO does not relieve the Contractor from the regulatory requirements governing safety responsibility. The SSHO on this project can be the site superintendent unless otherwise indicated in Attachment A. The SSHO shall meet the following requirements:
 - 1) A minimum of 5 years safety work on similar projects.
 - 2) 30-hour OSHA construction safety class or equivalent within the last 5 years.
 - 3) An average of at least 24 hours of formal safety training each year for the past 5 years.
 - 4) Competent person training as needed.
 - 5) Successfully completed the Environmental Compliance Awareness Training (ECATT) Program.
 - 6) In addition to duties required in EM 385-1-1, perform the following:
 - a) Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the daily production report.
 - b) Attend pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic progress meetings.

Failure to actively apply an acceptable safety program will result in dismissal and a project work stoppage that will remain in effect pending approval of a suitable replacement.

g. Accident Notification and Reports

- 1) For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the Navy Contractor Significant Incident Report (CSIR) form and provide the report to the Contracting Officer within 5 calendar days of the accident. The Contracting Officer will provide copies of any required or special forms.
 - 2) For any weight handling equipment accident (including rigging gear accidents), the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the WHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Crane operations shall not proceed until cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. The Contracting Officer will provide a blank copy of the accident report form.
 - 3) Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident. Include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (e.g., type of construction equipment used, PPE used). Preserve the conditions and evidence on accident site until the Government investigation team arrives and Government investigation is conducted.
 - 4) Monthly Work-Hour Reports: Monthly work-hour reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.
- h. Hot Work: Prior to performing "Hot Work" (e.g., welding, cutting) or operating other flame-producing/ spark-producing devices, request a written permit from the Fire Division. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. It is mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site as required after completion of the task or as specified on the hot work permit.
- i. Hazardous Material Use: Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material.

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory

equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, or lead-based paint are prohibited. The Contracting Officer, upon written request may consider exceptions to the use of any of the above excluded materials.

The Request for Proposal should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to FAR 52.243-4, *Changes*, and FAR 52.236-2, *Differing Site Conditions*.

- j. Pre-outage Coordination Meeting: Apply for utility outages at least 15 days in advance. As a minimum, include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Once approved, and prior to beginning work on the utility system requiring shut down, attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.
- k. Fall Hazard Protection and Prevention Program: Establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. Include company policy; identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures.
 - 1) Fall Protection for Roofing Work: Implement all protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.
 - a) A safety monitoring system is not adequate fall protection for low sloped roofs and is not authorized.
 - b) Work on steep-sloped roofs, including residential or housing type construction, requires a personal fall arrest system, guardrails with toe-boards, or safety nets.
 - 2) Fall Prevention and Design: During design, consider and eliminate fall hazards encountered at the facility during maintenance evolutions whenever possible. If it is not feasible to eliminate or prevent the need to work at heights with its subsequent exposure to fall hazards, include control measures in the design to protect personnel conducting maintenance work after completion of the project. In addition to the detailed requirements included in the provisions of this contract, incorporate the requirements of 29 CFR 1910 Standards in the design (29 CFR 1915 applies for work in Shipyards).
- l. Weight Handling Equipment:

- 1) Crane Critical Lift Plan: Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. Submit the plan 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.C.18. as well as the following:
 - a) For lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.550(g).
 - b) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.
- 2) Provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance shall comply with 29 CFR 1926 and USACE EM 385-1-1 section 16 and Appendix H. The Certificate of Compliance shall state that the crane operator(s) is qualified and trained in the operation of the crane to be used. Also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices). Post these certifications on the crane.
- 3) Notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.
- 4) Comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in ASME B30.5). Perform all testing in accordance with the manufacturer's recommended procedures.
- 5) Comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, and ASME B30.8 for floating cranes and floating derricks.
- 6) Under no circumstance make a lift at or above 90% of the crane's rated capacity in any configuration.
- 7) When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.
- 8) Use cribbing when performing lifts on outriggers.

- 9) Position the crane hook/block directly over the load. Side loading of the crane is prohibited.
 - 10) Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall be available for review by Contracting Officer personnel.
 - 11) Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.
 - 12) Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
 - 13) Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations, set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load being lifted, experience of operators and riggers, and hazards on the work site. Include this maximum wind speed determination in the activity hazard analysis plan for that operation.
- m. Utility Locations and Verification Prior to Excavation: Obtain appropriate digging permit from Base personnel through Contracting Officer prior to digging. All underground utilities in the work area must be positively identified by a private utility locating service in addition to any station locating service and coordinated with the station utility department. Maintain all markings during utility investigation throughout the contract. Locate utilities in accordance with Paragraph 17 and Attachment A.
- Physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Use hand digging within 2 feet of a known utility. If construction is parallel to an existing utility, expose the utility by hand digging every 100 feet if parallel within 5 feet of the excavation.
- n. Utilities Within Concrete Slabs: Utilities located within concrete slabs are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems shall be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement.
 - o. Conduct of Electrical Work: Follow electrical safety criteria specified in UFC 3-560-01, USACE EM 385-1-1, and NFPA 70E during the conduct of all work.
 - p. Work in Confined Spaces: In addition to the requirements of Section 06.I of USACE EM 385-1-1, OSHA 29 CFR 1910.146 and OSHA 29 CFR 1926.21(b)(6), comply with the following paragraphs. Any potential for a hazard in the confined space requires a permit system to be used.

- 1) Confined Space Signage: Provide permanent signs integral to or securely attached to access covers for permit-required confined spaces provided by this contract. Signs wording: "DANGER--PERMIT-REQUIRED CONFINED SPACE - DO NOT ENTER -" in bold letters a minimum of one inch in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 5 feet.
 - 2) Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and all potential hazards are controlled or eliminated and documented. (See Section 06.I.06 of USACE EM 385-1-1 for entry procedures.) Review all hazards pertaining to the space with each employee during AHA process.
 - 3) Forced air ventilation is required for all confined space entry operations. Maintain minimum air exchange requirements to ensure exposure to any hazardous atmosphere is kept below its' action level.
 - 4) Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.
- q. Ergonomics Considerations During Design: Design facilities, processes, job tasks, tools and materials to reduce or eliminate work-related musculoskeletal (WMSD) injuries and risk factors in the workplace. Design maintenance access to reduce WMSD risk factors to the lowest level possible. In addition to requirements included in this contract, design shall incorporate the requirements of MIL-STD-1472F.

-- End of Section --

Small Project Part 2, Attachment A Project-Specific General Requirements

02/10

The following requirements are project specific and may either supplement and/or modify those requirements contained in the body of Part 2, General Requirements, for Small Projects. Paragraph numbers in Part 2 correspond to paragraph numbers used in Part 2, Attachment A.

Paragraph 4 DESIGN

Submit design drawings or sketches, calculations and manufacturer's data to demonstrate compliance with contract requirements. The Contractor is encouraged to prepare design drawings more like shop drawings to minimize construction submittals.

Provide hard and electronic copies of design submittal packages to the following reviewers 2 weeks prior to the in-progress review meeting:

Deliverable	ROICC	FMD	FED	User
Design Development				
Half-size Drawings or Sketches	2	2	2	1
Specifications and Manufacturer's Cut Sheets	1	2	1	1
Design/Construction Schedule	1		1	1
Budget Management Status	1		1	1
Calculations			1	
PROD Form (Permits)	1			
Finish Documentation Color Boards	1	1	1	1
Final Design				
Half-size Drawings or Sketches	2	2	2	1
Specifications and Manufacturer's Cut Sheets	1	2	1	1
Design/Construction Schedule	1		1	1
Budget Management Summary	1		1	1
Calculations			1	
Finish Documentation Color Boards	1	1	1	1

1. The final design submittal must be professionally signed and sealed by the DOR and forwarded to the Contracting Officer prior to the start of construction.
2. Construction submittals are to be Contractor-approved, except those listed below:
 - a. DOR Approval required for:
 - 1) All components of the roof and exterior wall.
 - 2) All components of the interior doors, hardware, cabinets, fireproofing/firestopping, railings, paint, finish materials/colors.

- b. Government Approval required for:
 - 1) Fire Protection related submittals
 - 2) HVAC Testing, Adjusting, and Balancing
3. Submit the following construction submittals, approved by the DOR, to the Government for surveillance:
 - a. Submit fire protection related submittals pertaining to spray-applied fire proofing and fire stopping, exterior fire alarm reporting systems, interior fire alarm & detection systems, and fire suppression systems including fire pumps and standpipe systems.
 - b. Submit geotechnical related submittals pertaining to the soils investigations (reports and soils analysis), foundations (shallow and deep), pavements structure design, test pile and production pile testing and installation.
 - c. Submit roofing submittals pertaining to materials and systems used to make up the roof system.
 - d. Submit HVAC Testing, Adjusting, and Balancing required submittals.

Paragraph 5 FIRE PROTECTION AND LIFE SAFETY REQUIREMENTS

The Contractor shall retain the services of a Registered Fire Protection Engineer (FPE). This FPE shall be an integral part of the Prime Contractor's Design and Quality Control Organization, and shall have no business relationships (owner, partner, operating officer, distributor, salesman, or technical representative) with any fire protection equipment device manufacturers, suppliers or installers for any such equipment provided as part of this project. Unless otherwise specified, all work performed on means of egress, fire rated elements, Fire Suppression, Mass Notification, and Fire Alarm Systems shall be designed, reviewed, inspected and approved by the FPE.

1. Qualifications/Experience:
 - a. Qualifications of the Designer: The FPE DOR shall have obtained professional registration by successfully completing the Fire Protection Engineering discipline examination.
 - b. Qualifications of the Installer: Prior to installation, submit data showing the Contractor has successfully installed systems of the same type and design as specified herein, or that Contractor has a contractual agreement with a subcontractor having such experience. Include names and locations of at least two installations where the Contractor, or subcontractor, has installed such systems. Indicate type and design of each system and certify that each has performed satisfactorily as intended for not less than 18 months.
 - c. Qualifications of the System Technician: Installation drawings, shop drawing and as-built drawings shall be prepared, by or under the supervision of, an individual who is experienced with the types of works specified herein, and is currently certified by the National Institute for Certification in Engineering Technologies (NICET) as an engineering technician with minimum Level-III certification in the fire protection certification program applicable to the work being performed. Submit data for approval showing the name and certification of all involved individuals with such qualifications at or prior to submittal of drawings.
2. Area of Responsibility: The FPE is responsible for assuring the proper design, construction and installation of life safety, fire protection, and mass notification features across all disciplines and trades. Services include preparing the Design Analysis, preparing or

reviewing and approving the design documents (drawings), preparing or reviewing all fire protection related specification sections (including fireproofing, firestopping, fire suppression systems, and mass notification and fire alarm systems), certifying in writing that the completed design incorporates all required features, and certifying in writing that the facility was constructed in accordance with the approved design documents and applicable criteria. The FPE shall be responsible for assuring that the construction and installation are in accordance with the approved design documents by reviewing and approving all fire protection construction submittals, providing construction surveillance and preliminary and final inspections and testing services. Examples include, but are not limited to, water distribution systems including fire pumps and fire hydrants, fire resistive assemblies such as spray-applied fire proofing of structural components and fire rated walls/partitions, mass notification, fire alarm and detection systems, fire suppression and standpipe systems, means of egress components, and emergency and exit lighting fixtures. A copy of each approved submittal, with a copy of the Contractor's FPE review comments, shall be forwarded to the Government FPE prior to starting work for that item.

3. Construction Surveillance: The FPE shall visit the construction site as necessary to ensure life safety and fire protection systems are being constructed, applied, and installed in accordance with the approved design documents, approved construction submittals, and manufacturer's requirements. Frequency and duration of the field visits are dependent upon particular system components, system complexity, and phase of construction. At a minimum, field visits shall occur just prior to installation of suspended ceiling system to inspect the integrity of passive fire protection features and fire suppression system piping, preliminary inspections of mass notification, fire alarm/detection and suppression systems, and final acceptance testing of mass notification, fire alarm/detection and suppression systems.
 - a. Preliminary and Final Inspections and Acceptance Testing: FPE shall personally witness all preliminary inspections and testing of mass notification, fire alarm/detection and suppression systems. Once preliminary inspections and testing have been successfully completed, the FPE shall submit a signed certificate to the QC Manager that systems are fully compliant and ready for final inspection and acceptance testing. The QC Manager shall provide 14 days advance notice to the Contracting Officer to schedule the final inspection and acceptance testing with the activity Fire Inspection Office and the NAVFAC Fire Protection Engineer.
 - b. Final Life Safety/Fire Protection Certification Documentation: The FPE shall provide certification that all life safety and fire protection features and systems have been installed in accordance with applicable criteria, the contract documents, approved submittals, and manufacturer's requirements. This certification shall summarize all life safety and fire protection features, and shall bear the professional seal of the fire protection engineer.

Paragraph 6 QUALITY CONTROL

The Superintendent may serve also as the Quality Control Manager on this project.

Paragraph 7 SUBMITTAL PROCESSING

	SUBMITTAL/BENCHMARK	DURATION	BENCHMARK	RECEIVED	STATUS
1	Quality Control Plan				
2	Material Safety Data Sheets				
3	Design/Construction Schedule				
4	Waste Management Plan				
5	Safety and Health Plan				
6	Schedule of Prices				

7	Budget Management Summary				
8	Record Drawings				
9	Operation and Maintenance Information				
10	Licenses and Permits				
11	Badge Requests				
12	Statement of Acknowledgement SF 1413				
13	Demolition and Work Plan				
14	Design Development Docs				
15	Final Design Docs				
16	Submittal Register				
17	Waste Management Opportunity Assessment Form				
18	Performance/Payment Bonds				
19	Environmental Protection Plan				
20	Certificates of Insurance				
21	DD Form 1354				

Paragraph 21 ENVIRONMENTAL CONTROLS AND PROTECTION

The DOR is required to edit and submit UFGS 01 57 19.00 20, *Temporary Environmental Controls*. The DOR must ensure state and local regulations are met within the edited UFGS section.

The DOR is required to edit and submit UFGS 02 83 13.00 20, *Lead in Construction*.

Paragraph 23 RECORD DRAWINGS AND OPERATION & MAINTENANCE (O&M) DATA

Provide the Contracting Officer with two copies of half size as-built drawings and two CDs containing drawings (in both PDF and AutoCAD formats), and all construction submittals.

Paragraph 34 SAFETY AND OCCUPATIONAL HEALTH

The DOR is required to edit and submit UFGS 01 35 29, *Safety and Occupational Health Requirements*.

Sub-Paragraph f., Safety and Health Officer (SSHO)

The Site Safety and Health Officer may serve also as the Superintendent.

****End of PART 2 Attachment A****

Small Project Part 3 Statement of Work / Project Program

02/10

1. PROJECT DESCRIPTION

PART I - GENERAL:

Building 150 is a 100,300 SF warehouse facility that was constructed in 1942. An addition was constructed in 1945. There have been minor renovations to the building's electrical, plumbing, steam, and sprinkler systems, but no major renovations since construction.

This project's scope of work will include replacing the existing steam heating system in its entirety in Bays "B" through "F"; replacing the gravity roof vents in Bays "B" through "F" with power roof ventilators; installing new electrical circuits to fix wiring deficiencies; relocating an existing air compressor; demolishing and rebuilding three different office enclosures/break areas; demolishing an existing wood frame wall; installing a new exterior personnel door and a new exterior motorized coiling door; repairing the existing concrete floor; installing a freestanding bridge crane; constructing a new exterior concrete ramp; painting the existing wood walls, existing wood ceiling, and existing wood building columns; and other related work. Painting the existing wood ceiling shall be an additive bid item.

PART II - PROJECT REQUIREMENTS:

A. Architectural:

1. Perform a Life Safety/Building Code analysis of the entire building.
2. Demolish and rebuild the existing office enclosure located on the south side of Bay "D". Ensure the new enclosure is provided with fire protection sprinklers, fire alarm devices, and HVAC.
3. Demolish and rebuild the existing office enclosure located on the SE side of Bay "F". Ensure the new enclosure is provided with fire protection sprinklers, fire alarm devices, and HVAC.
4. Demolish, rebuild, and relocate the existing office enclosure and storage room located on the SW side of Bay "F". The new space is to be relocated approximately 5 feet to the east, allowing the existing external personnel door to open directly into the shop space. Ensure the space is provided with fire protection sprinklers, fire alarm devices, and HVAC.
5. Demolish the existing wood frame wall and reinforced concrete curb in Bay "F".
6. Install a new steel personnel door and frame in the west exterior wall of Bay "E". Install exit signs and fire alarm devices at this door as required.
7. Install a new motorized coiling steel door in the west exterior wall of Bay "D", aligned with the existing coiling door on the east exterior wall.
8. Paint the existing wood building columns, wood walls, and wood ceilings throughout Bays "B" through "F". Painting the ceilings shall be an additive bid item.

9. Test for the presence of suspected asbestos and lead-containing material. The inspection shall be performed by a North Carolina Accredited Inspector and shall identify any suspected material that appears to be involved in the project. Assume the presence of asbestos and lead paint is a possibility and be prepared to do some sampling and analysis during the inspection. For negotiation purposes, assume 50 samples and analysis will be needed. Provide a signed report certifying the inspection, including the inspector's certification number. State the findings of the inspection and state if the area appears to be asbestos-free or lead-free or present the results of the sampling and analysis. Show locations of any samples taken in the report and on demolition plans. If asbestos or lead containing materials are found and affected by this project, provide information on the plans and in the specifications concerning the handling of the material involved.

B. Civil:

1. Construct a new exterior concrete ramp outside the new coiling steel door from the loading dock down to grade.
2. Repair the concrete floor at the threshold of several internal coiling door locations.
3. Repair the existing concrete floor at several expansion joints.
4. Install a new freestanding five-ton bridge crane in the high-bay area of Bay "F". Crane is to be floor supported, with top-running electric-powered bridge, an underhung electric-powered trolley, and a wire rope electric-powered hoist.

B. Mechanical:

1. Calculate the heat required and replace the steam heating system in its entirety in Bays "B" through "F". Provide a thermostatic temperature control system.
2. Calculate ventilation requirements and replace the existing gravity vents in Bays "B" through "F" with power roof ventilators equipped with gravity back-draft dampers.
3. Relocate the existing air compressor that is currently located in the SW side of Bay "F".
4. Paint the existing fire protection sprinkler pipe red.

C. Electrical:

1. Install new electrical circuits to fix wiring deficiencies identified in the attached Fire Department Inspection Report. For example, in Bay "F" adjacent to the wood shop, there are multiple extension cords being used in violation of NFPA 70 to operate computers and other equipment. Another example is that there is a power cord taped to the floor for the plywood lift in the wood shop.
2. Perform repairs to correct wiring deficiencies identified in the attached Fire Department Inspection Report. There is exposed wiring at exit doors #12, #14, and #16 that must be corrected. There is also an open electrical junction box above the bulk plywood storage area that must be covered.
3. Remove the exit signs that are above roll-up doors, as these doors do not meet the criteria for an exit door.
4. Install electrical utility to the new power roof ventilators. Provide a safety switch for each ventilator.

2. PROJECT OBJECTIVES

2.1 APPLICABLE CODES AND STANDARDS:

In addition to the codes and standards listed in Part 4, the design shall be in accordance with the latest revision/edition of the MCAS Cherry Point A/E Guide, which can be found in the Construction Criteria Base (CCB) system (<http://www.ccb.org>). The term "Latest Revision/Edition" is defined as the version as of the project award date.

2.2 SUSTAINABLE DESIGN

In accordance with Executive Order 13423, NAVFAC Engineering & Construction Bulletin (ECB) 2008-01 and other pertinent directives, integrate sustainable principles into the design, development and construction of the project. Reduce the total cost of ownership of the facility using a whole building, life-cycle approach.

Provide integrated sustainable design strategies and features to minimize the energy consumption of the facilities; conserve resources; minimize adverse effects to the environment; and improve occupant productivity, health, and comfort.

3. SITE ANALYSIS

3.1 EXISTING SITE CONDITIONS:

The site is located at MCAS Cherry Point NC, and contains an existing building. Existing utilities include water lines, sanitary gravity sewer main, storm sewer, steam, electric and telephone.

Geotechnical Data: Any Government provided geotechnical data is included for the Contractor's information only, and while it is considered to represent subsurface conditions existing on the project site anticipated at this time, it is not guaranteed to fully represent all subsurface conditions. The Contractor shall be responsible for providing the services of a geotechnical engineer to conduct any subsurface exploration, investigation, testing, and analysis that the Designer of Record deems necessary for the design and construction of the proposed facility and site improvements. The geotechnical engineer shall be registered as a Professional Engineer (Geotechnical Engineer where required by law) and experienced with soil conditions in the region where the project site is located. The geotechnical engineer shall prepare a report addressing any elements of the work requiring his services. The report shall be submitted to the Contracting Officer accompanied by a letter from the Designer of Record certifying that the Geotechnical Engineer has reviewed the construction documents and that the design reflects the recommendations of the geotechnical report.

4. BUILDING REQUIREMENTS

Not used.

5. ROOM REQUIREMENTS

Not used.

6. ENGINEERING SYSTEMS REQUIREMENTS (ESR)

- B20 Exterior Closure
- C10 Interior Construction
- C30 Interior Finishes
- D30 HVAC
- D40 Fire Protection Systems
- D50 Electrical Power and Lighting
- F20 Selective Building Demo
- G10 Site Preparations
- G40 Site Electrical Utilities

B20 EXTERIOR ENCLOSURE

B2030 EXTERIOR DOORS

Provide solid door assemblies other than at the main entrance. Exterior doors and frames shall be non-corroding prefinished steel.

Doors shall be Heavy Duty Doors - Level 2, physical performance Level B, Model 1 or 2.

Solid Doors

Provide solid steel door assemblies other than at main entrance including painted heavy-duty, non-corroding, insulated doors with frames and hardware. Provide all accessories and wall opening elements such as lintels, sills and flashings.

Overhead and Roll-up Doors

Doors shall be rolling service type. Doors shall have manual operation. Doors shall be operated by three-button electric power conforming to NEMA MG 1, NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with auxiliary hand chain operation.

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

Fixed Partitions

Provide fixed interior partitions. Interior fixed partitions shall be metal studs with impact rated gypsum board on each side.

Interior Windows

Provide interior windows of aluminum, fixed.

Interior Glazing

Interior glazing shall be clear glass.

C1020 INTERIOR DOORS

Provide steel interior doors.

All interior door frames shall be hollow metal.

Doors shall have field finish.

Provide vision glazing in doors where it is required by this RFP, or it is deemed advantageous to be able to see through the door, either for safety of pedestrian traffic, or other functional reason.

Interior Door Hardware

Provide the services of a Certified Door Hardware Consultant to prepare the door hardware schedule.

Provide hardware keying compatible with the existing base-wide keying system. Replacement interchangeable cores shall be compatible with the Best Lock, Arrow Lock, or Falcon Lock system.

C1030 SPECIALTIES

Fire Extinguisher Cabinets and Fire Extinguishers

Provide fire extinguisher cabinets and fire extinguishers where required by UFC 3-600-01 and the building/fire codes. Coordinate size and Class of fire extinguishers with local Fire Department.

Firestopping Penetrations

Provide all sleeves, caulking, and flashing for firestopping penetrations.

C30 INTERIOR FINISHES

C3010 WALL FINISHES

Unless noted otherwise, all interior gypsum board wall partitions shall be painted gypsum board.

C3020 FLOOR FINISHES

Primary floor finish in offices and break areas shall be vinyl composition tile.

C3030 CEILING FINISHES

Primary ceiling finish in offices and break areas shall be 24 inch by 24 inch by 5/8 inch minimum thickness suspended acoustical panel ceiling system. Acoustical ceiling panels shall have a regular edge.

C3040 INTERIOR COATINGS AND SPECIAL FINISHES

Paint new and previously painted interior surfaces including walls, doors, trim, ceilings as well as all interior exposed metal items, to include interior grilles, registers, diffusers, access panels, and panel boxes.

D30 HVAC

HVAC SYSTEM REQUIREMENTS

Provide air conditioning and heating for spaces as indicated and for the following Design conditions:

Outside Conditions					
Summer	91	Degrees F dry bulb	Winter	22	Degrees F
	78	Degrees F wet bulb			

Inside Conditions - Warehouse					
Summer	N/A	Degrees F dry bulb	Winter	65	Degrees F
	N/A	% Relative Humidity			

Inside Conditions – Offices and Break Rooms					
Summer	76	Degrees F dry bulb	Winter	68	Degrees F
	50	% Relative Humidity			

Provide Ventilation rates and systems per the latest edition of ASHRAE Standard 62, *Ventilation for Acceptable Indoor Air Quality*.

D3010 ENERGY SUPPLY

Heating Supply

Utilize the existing steam supply.

D3020 HEAT GENERATING SYSTEMS

Equipment Thermal Insulation

Provide Insulation for steam and condensate piping.

D3050 TERMINAL & PACKAGE UNITS

Unit Heaters

Provide steam unit heaters.

D3060 CONTROLS AND INSTRUMENTATION

HVAC Controls

The system shall utilize electronic equipment controllers.

D3070 SYSTEMS TESTING AND BALANCING

Provide complete Testing and Balancing (TAB) of all air and water distribution systems and HVAC equipment.

D40 FIRE PROTECTION SYSTEMS

D4010 FIRE ALARM AND DETECTION SYSTEMS

Extend or modify the existing fire alarm and detection system as required.

D4020 FIRE SUPPRESSION WATER SUPPLY AND EQUIPMENT

Base hydraulic calculations on flow tests conducted by the Fire Protection Engineering Designer of Record.

D4040 SPRINKLERS

Extend or modify the existing automatic sprinkler protection for complete coverage throughout.

D4090 OTHER FIRE PROTECTION SYSTEMS

Provide portable fire extinguishes and cabinets as required.

D50 ELECTRICAL

The electrical design shall comply with the design criteria specified in UFC 3-500-10N, *Electrical Engineering*, and its referenced documents.

D5010 ELECTRICAL SERVICE & DISTRIBUTION

Provide an insulated equipment grounding conductor in all raceways for systems operating at greater than 50 volts.

D5020 LIGHTING & BRANCH WIRING

All conductors shall be copper.

Provide lighting and general purpose receptacles throughout all spaces as required.

Provide dedicated power connections to all ancillary office equipment such as printers, faxes, plotters, and shredders.

F20 SELECTIVE BUILDING DEMOLITION

F2020 HAZARDOUS COMPONENT ABATEMENT

A report of testing for the presence of asbestos and lead based paint is to be developed by the Designer or Record to support this project.

Private Qualified Person (PQP)

The Contractor is required to hire a PQP to ensure compliance with the approved work plans and perform independent inspections, testing and verification of the hazardous components work including asbestos and lead containing paint.

Paint Related Work

The work will require disturbance of paint containing lead.

Ozone Depleting Substances (ODS)

Remove the following equipment which contains ODS: air conditioning equipment.

Disposal

All waste materials shall become the property of the Contractor and shall be transported, disposed of or recycled in accordance with:

G10 SITE PREPARATION

Perform a topographic survey of the project site and include it in the design drawings. Physically verify the location of all existing utilities.

G1010 SITE CLEARING

Minimize removal and disposal of all trees required for project construction.

Burning will not be allowed.

All grubbing and clearing residue, demolished material, rubbish and debris generated by this project shall be hauled off-site and off station by the Contractor.

G1030 SITE EARTHWORK

Provide grading so the site will drain. Blasting for rock excavation will not be permitted.

Provide materials required in excess of those resulting from excavations from off Government property.

All unsuitable material and surplus excavation shall become the property of the Contractor and shall be disposed of off Government property.

G40 SITE ELECTRICAL UTILITIES

G4010 ELECTRICAL DISTRIBUTION

The electrical design shall comply with the design criteria specified in UFC 3-500-10N, *Electrical Engineering*.

All primary distribution systems must be designed as four-wire, multi-grounded systems that are wye connected at the source transformer. A system grounded neutral conductor must be provided throughout the system. Equipment intended to interrupt current at fault levels must have interrupting ratings sufficient for the nominal circuit voltage and the current that is available at the line terminals of the equipment.

Provide bollards in areas where equipment is subject to vehicular damage.

Underground Electric Conductors

All conductors shall be copper.

Underground primary electrical distribution shall comply with Section 2.2-10 of UFC 3-500-10N, *Electrical Engineering*.

-- End of Section --

Small Project Part 4

Minimum Materials, Engineering and Construction Requirements

02/10

1. GENERAL REQUIREMENTS: The requirements indicated here are minimum performance requirements. More specific project functional and performance requirements, scope items and expected quality levels over and above the standards in Part 4 are identified in Part 3 of the Request for Proposal or Basic Ordering Agreement. The Contractor is encouraged to exceed the minimum requirements. The Contractor's performance evaluation will be based in part on enhancements to materials, engineering, design and construction provided for the contract that exceed minimum requirements.

Part 4 is a general section. Not all items in Part 4 will be required for this project. See Part 3 for project-specific requirements. See "Order of Precedence" paragraph in Part 2 for relationships between all parts of the RFP.

In general, unless otherwise indicated, Contractor shall provide all labor, equipment and materials necessary to complete the work required for the contract. All work shall be in conformance with all applicable referenced criteria, construction standards, laws and regulations, including applicable building and fire, life safety codes.

Recycled Materials Considerations:

An Affirmative Procurement Program has been established within the Federal government to promote the purchase of products containing recovered materials. This program promotes the purchase of products containing materials recovered from the solid waste stream. The intent is to conserve resources and reduce solid waste by developing markets for recycled products and encouraging manufacturers to produce quality recycled content products. The contractors shall use products that meet or exceed the EPA guideline standards for recovered content as required by the Federal Acquisition Regulations (FAR). Availability lists of manufacturers and EPA research on product usage are on the Construction Criteria Base (CCB) at <http://www.ccb.org> under Documents Library, NAVFAC Criteria. A partial list of products containing recycled materials for possible use is as follows:

- Rock Wool Insulation
- Fiberglass Insulation
- Cellulose Insulation
- Structural Fiberboard and Laminated Paperboard
- Cement and Concrete - Coal Fly Ash
- Floor Tiles

1.1 MATERIALS AND METHODS OF CONSTRUCTION: Only new materials and equipment shall be installed in the work. All materials, equipment and appliances shall be of the current manufacturers' products. No obsolete or discontinued materials, equipment and appliances shall be used, except that construction materials containing recycled content as described in Paragraph 1 of this Part that completely comply with all materials specifications found elsewhere in this Part may be used.

1.2 APPLICABLE CODES AND STANDARDS: The design and construction shall be in accordance with established construction practices, and the latest revision/edition of the following referenced codes and standards. The term "Latest Revision/Edition" is defined as the version as of the project award date. References are available at www.wbdg.org/ndbm/. The advisory provisions of all codes and standards shall be mandatory, as though the word "shall" had been substituted for "should" wherever it appears. Reference to the "authority having jurisdiction" shall be construed to mean "Contracting Officer". Comply with the required and advisory portions of the current edition of the standard at the time of contract award. UFC 1-200-01, *General Building Requirements* is the building code guide and contains references to

other UFCs and Codes that are to be used for all sections in this contract. UFC 1-300-09N, *Design Procedures*, provides design guidance and contains references to other UFCs and Codes that are to be used for all sections in this contract.

1. Unified Facilities Criteria (UFC) 1-200-01, *General Building Requirements*
2. UFC 1-300-09N, *Design Procedures*
3. American Gas Association (AGA).
4. Associated Air Balance Council (AABC)
5. National Environmental Balancing Bureau (NEBB)
6. International Mechanical Code (IMC).
7. American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standards
8. Sheet Metal and Air Conditioning Contractors National Association (SMACNA) guidelines.
9. International Plumbing Code (IPC).
10. Illuminating Engineering Society North America (IESNA) Handbook
11. National Electrical Manufacturers Association (NEMA).
12. Electronic Industries Alliance (EIA)
13. Telecommunications Industry Association (TIA)
14. American Woodwork Institute
15. Architectural Woodwork Institute
16. APA – The Engineered Wood Association
17. Steel Door Institute (SDI)
18. American Aluminum Manufacturers Association (AAMA)
19. National Wood Window and Door Association (NWWDA).
20. NRCA, *Roofing and Waterproofing Manual* found at <http://www.nrca.net/rp/technical/manual/manual.aspx>
21. American Hardware Association (AHA).
22. Building Hardware Manufacturers Association (BHMA).
23. Federal, State, County, and local environmental regulations.
24. ASHRAE Std. 90.1, *Energy Standards for Buildings Except Low Rise Residential Buildings*
25. American Society of Testing and Materials (ASTM)
26. American Water Works Association (AWWA)
27. National Fire Protection Association (NFPA) Codes and Standards
28. IEEE C2, *National Electrical Safety Code*

1.3 LOCATION-SPECIFIC CODES AND STANDARDS: See Part 3

1.4 DISCREPANCIES: When discrepancies in the referenced standards and the contract requirements occur, the more stringent requirements shall govern. The word “should” in all NFPA publications shall be interpreted as a requirement. The Authority Having Jurisdiction in the interpretation of the codes and standards, and approving the exceptions allowed in the referenced standards, shall be the Contracting Officer, and the parties designated by the Contracting Officer.

2. PERFORMANCE TECHNICAL SPECIFICATIONS

Note: The paragraph numbers used correspond with the numbers used in UNIFORMAT II/Work Breakdown Structures (WBS) as listed in the Whole Building Design Guide, Navy Design Build Master, accessible at this website: www.wbdg.org/ndbm.

SECTION A. SUBSTRUCTURE

A10 FOUNDATION

Foundations shall be reinforced concrete slabs-on-grade with continuous strip footings or isolated spread footings. Concrete slabs shall not be less than 4 inches in thickness and footings shall not be less than 18 inches below the lowest adjacent grade. Foundations shall be designed and constructed of reinforced concrete. All design and construction shall comply with IBC and with applicable requirements in Section B Shell. For the purposes of interpreting IBC Chapter 18, the "Owner" and "Building Official" shall mean the "Government", and the "Applicant" shall mean the "Contractor/Designer of Record".

1. **Contractor-Foundation Design:** The Designer of Record shall evaluate the RFP data, and obtain and evaluate all additional data as required to support the design and construction.
2. **Geotechnical Site Data required in Design Drawings:** The Contractor's final design drawings shall include:
 - a. Notes identifying the soil allowable bearing capacity used in design.
 - b. Subsurface soil information, be it Government provided or Contractor obtained, that represents subsurface conditions existing on the project site (such as boring logs, test pits, laboratory test results and groundwater observations). The locations of all borings shall be indicated on the drawings.
3. **Performance Verification and Acceptance Testing:** Verification of satisfactory construction and system performance shall be via Performance Verification Testing, as detailed in this part of the RFP.
 - a. **Earthwork:** Perform quality assurance for earthwork in accordance with IBC Chapter 17. See Section G1030.

SECTION B. SHELL

Building shell may be of any materials and design allowed by applicable codes and standards, subject to specific requirements that may be applicable to a particular Activity, such as the Base Exterior Architecture Plan (BEAP) and UFC 4-010-01.

B10 SUPERSTRUCTURES

Superstructure work includes structural frames, bearing walls, floors, roofs, roof canopies, and balcony construction. Unless otherwise specified in Part 3, superstructures may be designed and constructed using any materials or combination of different materials allowed by applicable codes and standards. All design and construction shall comply with IBC. Special inspection, testing, approvals, certifications, observations and quality assurance plans as prescribed in Chapter 17 of the IBC are required.

1. **Concrete:** All concrete shall be constructed in accordance with ACI 301. Concrete shall have a 28-day minimum compressive strength of 3,000 psi. Slump shall be between 2 and 4 inches in accordance with ASTM C143. Provide joints as required to minimize cracking. All concrete shall be reinforced. Provide joints as required by applicable ACI standards. Unless otherwise specified in Part 3 or as indicated by the contracting officer, provide steel trowel finish for all exposed floor surfaces.
2. **Structural Steel:** Structural steel exposed to weathering shall be adequately protected to prevent corrosion.

3. **Steel deck:** Steel form deck shall have a G90 galvanized finish, and must have a minimum 26-gage thickness. All other steel deck shall have a G90 galvanized finish, and must have a minimum 20-gage thickness.
4. **Cold-formed metal framing:** Cold-formed steel studs, joists and track shall be galvanized with a minimum thickness of 20-gage.
5. **Wood framing:** Wood framing members shall be new lumber, unless otherwise allowed by Part 3. Timber can be Douglas Fir, Douglas Fir-Larch, Hem-Fir, Southern Pine or other structurally competent species allowed by applicable codes and standards. Wood framing shall meet the following minimum grading requirements:
 - a. Blocking - #3
 - b. Fascia, trim - #1
 - c. Wood Structural Panel Sheathing (Exterior Glue)
 - d. Walls - APA rated with span index of 32/16 – minimum thickness ½ inch

B20 EXTERIOR ENCLOSURE

B2010 EXTERIOR WALLS

1. Load-Bearing Metal Framing System

If permitted, provide load-bearing metal framing including top and bottom tracks, bracing, fastenings, and other accessories necessary for complete installation. Framing members shall have the structural properties indicated. Where physical structural properties are not indicated, they shall be as necessary to withstand all imposed loads. Design framing in accordance with AISI SG-673. Installation shall be in accordance with DOR-approved shop drawings and manufacturer's installation instructions.

2. Exterior Studs:

<u>Max. Deflection Criteria</u>	<u>Exterior Finish</u>
L/360	Cement Plaster, Wood Veneer, Synthetic Plaster, Metal Panels
L/600	Brick Veneer, Stone Panels

Wall deflections shall be computed on the basis that studs withstand all lateral forces independent of any composite action from sheathing materials. Studs abutting windows or louvers shall also be designed not to exceed 1/4-inch maximum deflection and as required in UFC 4-010-01.

- 1) Studs - ASTM A1003, Structural Grade 50, Type H minimum; provide Z180 (G60) galvanized coating in accordance with ASTM A653. Do not expose studs to direct moisture contact
- 2) Bracing - Provide horizontal bracing in accordance with design calculations and AISI SG-673, consisting of, as a minimum, runner channel cut to fit between and welded to the studs.
- 3) Sheathing - Provide sheathing to withstand structural loads imposed on the wall structure. Cover sheathing with either a 15 pound asphalt-impregnated building paper, or

air barrier as required by the wall moisture analysis. Sheathing shall be one of the following:

- a) **Plywood:** C-D Grade, Exposure 1;
- b) **Structural-Use and OSB Panels;**
- c) **Gypsum:** ASTM C79 and ASTM C1177, fire retardant (Type X) 5/8 inch thick; 4 feet wide with square edge for supports 16 inches on center with or without corner bracing of framing. Gypsum sheathing shall be faced with materials capable of resisting six months of weathering exposure without degradation of the covering or the gypsum. Seal all joints as recommended by the manufacturer.

3. Insulation and Vapor Retarder: Insulation, Vapor Retarders, and Air Barrier Systems in or on Exterior Enclosure shall include: insulation, liquid, sheet or continuous film materials installed separately in or on wall assemblies to provide resistance to heat loss/gain, and vapor penetration.

- a. **Vapor retarder:** Comply with ASTM C755. Incorporate in the exterior wall system where required by vapor transmission calculations or dew point analysis indicates the need or in conditions of high moisture exposure.
- b. **Bituminous Damp-proofing:** Bituminous Damp-proofing shall be ASTM D449, Type I or Type II on the exterior surface of the interior wythe of masonry in a cavity wall (back-up wall for masonry veneer).
- c. **Building Paper:** FS UU-B-790, Type I, Grade D, Style 1.
- d. **Air Barrier:** Building wrap consisting of air barrier sheeting complying with ASTM E1677, Type 1, not less than 3 mils thick with a permeance of not less than 10 perms. Building wrap shall have a flame spread index of less than 25 in accordance with ASTM E84. Provide building wrap over sheathing of wood or metal framed construction to reduce air penetration and airborne vapor penetration. Provide building wrap tape as recommended by the manufacturer for sealing all joints in the building wrap. Installation shall be in accordance with manufacturer's instructions. Air barrier installation at windows shall be in accordance with ASTM E2112.
- e. **Insulation Systems:** Vertical and horizontal polystyrene insulation conforming to ASTM C578 or rigid polyisocyanurate board wall insulating products conforming to ASTM C591 or mineral-fiber blanket insulation conforming to ASTM C665 shall be provided.

4. Exterior Soffits: Exterior soffit system.

5. Exterior Painting and Special Finishes: All painting and coating materials shall be low VOC. Painting practices shall comply with applicable federal, state and local laws enacted to insure compliance with Federal Clean Air Standards. Apply coating materials in accordance with SSPC PA 1. SSPC PA 1 methods are applicable to all substrates.

All paint shall be in accordance with the Master Painters Institute (MPI) standards for the exterior architectural surface being finished. The current MPI "Approved Product List" which lists paint by brand, label, product name and product code as of the date of contract award, will be used to determine compliance with the submittal requirements of this specification. Provide paint systems tested to "Detailed Performance Level" standard as defined by MPI.

6. Exterior Joint Sealant: Sealant joint design, priming, tooling, masking, cleaning and application shall be in accordance with the general requirements of Sealants: A Professionals' Guide from the Sealant, Waterproofing & Restoration Institute (SWRI). All sealant shall conform to ASTM C920.

B2030 EXTERIOR DOORS

Exterior doors shall be heavy duty insulated steel doors and frames for service access. Door frames shall have welded corners. Use heavy-duty overhead holder and closer to protect doors from wind damage. Provide kickplates on the inside face of all exterior doors. Weather-protect all exterior doors and related construction with low infiltration weather stripping and sealants. Provide threshold with offset to stop water penetration while maintaining accessibility compliance. Conform to the design criteria of ASCE 7. See the hardware schedule for door hardware requirements.

1. **Steel Doors:** Exterior doors shall comply with ANSI A250.8 (SDI-100). Hardware preparation shall be in accordance with ANSI A250.6. Doors shall be hung in accordance with ANSI A115.16.
 - a. Doors Required:
 - 1) Heavy Duty Doors – MSG # 18 (IP 0.042”), physical performance Level B, Model 1 or 2.
2. **Standard Steel Frames:** ANSI A250.8. Form frames with welded corners for installation in exterior walls. Form stops and beads of 20 gage steel. Frames shall be set in accordance with ASTM A250.11. Anchor all frames with a minimum of three jamb anchors and base steel anchors per frame, zinc-coated or painted with rust-inhibitive paint, not lighter than 18 gage. Mortar infill frames in masonry walls, and infill with gypsum board compound at each jamb anchor in metal frame walls. Only use surface exposed bolted anchors in concrete walls.
3. **Door and Frame Finishes:** Exterior Doors, Factory-Primed and Field Painted Finish - Doors and frames shall be factory primed with a rust inhibitive coating as specified in ANSI A250.8. Factory prime doors on six sides of the door.
4. **Rolling Service Doors and Grilles:** Coiling overhead doors shall have minimum 22 gage thermal insulated slats. Electric operators shall have three-button switches conforming to NEMA MG 1, NEMA ICS 1, and NEMA ICS 2, and auxiliary hand chain operation, weather-stripping and wind-locks. Doors shall be capable of withstanding the design wind loading of ASCE 7 and still operate normally. Finish of the door shall be hot-dipped galvanized with a painted finish.
5. **Hardware:** Provide the services of a Certified Door Hardware Consultant to prepare the door hardware schedule.

Provide all new hardware with satin chrome finish throughout. Hardware shall be commercial grade, suitable for the operational requirements and in compliance with life safety code and handicapped accessibility requirements, similar in quality to the hardware shown in C1020 Interior Doors and Hardware below.

Coordination: Provide a master keying system compatible with the existing base system. Coordinate with the local authority and the Contracting Officer to determine the local requirements for hardware, keying and master keying.

B30 ROOFING

For repair of existing roofing, the cutting of the existing roof shall be kept to a minimum and, where necessary, shall be made in a clean and orderly manner to prevent the appearance of a patch.

Repair all damage to existing and new roofing caused by the work of this Contract at no additional cost to the Government. The work shall be executed in such a manner as to maintain the integrity of the existing roofing manufacturer's warranty.

1. **Pre-Roofing Conference:** Prior to beginning roofing work, the Contractor shall hold a Pre-Roofing Conference with the personnel directly responsible for the roofing systems work, as well as the roofing manufacturer's technical representative.
2. **Roof Design Assurance:** If the roofing project is significant (Significant Roof – A single or group of buildings greater than 15,000 sf), or where extenuating circumstances of the roof project such as building use, content, safety, or visibility require a roofing consultant, the Contractor shall utilize the services of a Registered Roof Consultant (RRC) certified by the Roof Consultant Institute, or a Registered Professional architect or Engineer who specializes in roofing, to approve the roof design. The roof consultant must be engaged in roofing design and roofing construction as his primary endeavor. The roof consultant shall verify in writing that the design for the project is in accordance with the current edition of *NRCA Roofing and Waterproofing Manual*, UFC's, and RFP, and standard industry practices and building codes.

If a Roof Design Assurance Consultant is needed, consider using a Registered Roof Observer as a QC specialist.

B3010 ROOF COVERINGS

Roof coverings and procedures shall comply with the requirements of UFC 3-110-03, *Roofing*, and NRCA, *Roofing and Waterproofing Manual* found at <http://www.nrca.net/rp/technical/manual/manual.aspx> as the primary NAVFAC roofing criteria. Roof selection shall comply with UFC 3-330-02A, *Design: Commentary on Roof Systems*. Determine wind uplift using wind speed in accordance with ASCE-7.

1. **LOW SLOPE ROOF SYSTEMS:** Low slope systems shall be roofs with a pitch 3 in 12 or less. Low slope roofing systems shall be built-up asphalt roofing (aggregate surfaced, with modified bituminous components), modified bituminous membrane roofing of a minimum of 3 plies with aggregate surface or granular surface modified bitumen cap sheet, or structural standing seam metal roofing. Use epdm systems only to match existing construction.
2. **ROOF COMPONENTS:**
 - a. **Prefabricated Curbs and Equipment Support:** Provide Prefabricated curbs and equipment supports shall be of structural quality, hot-dipped galvanized or galvanized sheet steel, factory primed and prepared for painting with mitered and welded joints. Integral base plates and water diverter crickets shall be provided. Minimum height of curb shall be 8 inches above finish roof.
 - b. **Fasteners:** Shall meet all requirements of the NRCA and Factory Mutual
 - c. **Wood Nailers:** Wood nailers shall be pressure-preservative-treated in accordance with AWPA M2 Standards, permanently marked or branded, and installed flush with the top of the adjacent insulation board.
 - d. **Flashing and Sheet Metal:** Provide flashing and sheet metal work including scuppers, splash pans, and sheet metal roofing. Flashing and sheet metal shall be provided in accordance with roof manufacturer's printed installation instructions and in compliance with NRCA and SMACNA recommendations. Fabricate Flashing and sheet metal components from Copper, Lead-Coated Copper sheet, Steel Sheet, Zinc-Coated (Galvanized) - ASTM A653, Stainless Steel - ASTM A167, Type 302 or 304, 2D finish, or Pre-Finished Aluminum.
 - e. **Roof Openings and Supports:** Provide flashings for roof openings and supports as recommended by the NRCA. Assure all penetration flashings extend minimum 8 inches above the finished roof surface.

- f. **Traffic Pads:** Provide on roof system to protect roof from foot traffic. Provide traffic pads around roof mounted mechanical equipment and underneath removable mechanical equipment access panels. Traffic pads shall be of compatible material to roof.

SECTION C. INTERIORS

C10 INTERIOR CONSTRUCTION

C1010 PARTITIONS

1. **Fixed Partitions:** Light gage steel frame. In addition, interior partitions shall comply with tables for sound isolation and noise reduction in Chapter 1, "Architectural Graphic Standards". Include a statement of adherence to the applicable criteria.

Gypsum board/stud partitions shall be impact resistant. Reinforce points where doorknobs can strike a wall and anchorage points for wall mounted equipment.

2. **Glazed Partitions and Interior Windows:** Shall be of the materials allowed by IBC, and shall comply with fire and smoke separation requirements. Provide safety glazing and fire resistant rating where they are required.

C1020 INTERIOR DOORS

1. **Steel doors:** Shall be ANSI A250.8, Level 2, (low use, moderate abuse types such as office/storeroom doors), with a physical performance level of 'B'. Maximum door undercut shall not exceed 3/4 inch.
2. **Steel Door Frames:** ANSI A250.8. Form frames with welded corners for installation in masonry partitions and knock-down field assembled corners for installation in metal stud and GWB partitions. Frames shall be set in accordance with SDI 105. Form stops and beads with 20 gauge steel.

Provide a minimum of three jamb anchors and base steel anchors per frame, zinc-coated or painted with rust-inhibitive paint, not lighter than 18 gauge. Secure frames to previously installed concrete or masonry with expansion bolts in accordance with SDI 11-F. Provide mortar infill of frames in masonry walls, and gypsum board compound infill at each jamb anchor in metal frame walls.

3. **Interior Door Hardware:** Provide the services of a certified door hardware consultant to prepare the door hardware schedule. Unless otherwise noted, interior doors shall include latch, hinges, door stops and door silencers. Provide closers and kick plates for fire-rated, corridor, stairway and high-use non-residential doors.
 - a. **Hinges** - BHMA A156.1, Grade 1, 4-1/2 x 4-1/2 inches with non-removable pin or anti-friction bearing hinges.
 - b. **Locks and Latches** - For non-residential buildings use Series 1000, Operational Grade 1, Security Grade 2 for stairways, building entrances, corridors, assembly spaces, and other high use interior doors. Use Series 4000, Grade 1 for non-residential locations not using Series 1000 hardware. Provide hardware keying compatible with the existing base-wide keying system. Replacement interchangeable cores shall be compatible with the Best Lock, Arrow Lock, or Falcon Lock system.

- c. **Exit Devices** - BHMA A156.3, Grade 1. Touch bars shall be provided in lieu of conventional crossbars and arms.

C1030 SPECIALTIES

1. **Fire Extinguisher Cabinets:** Provide fire extinguisher cabinets. Size and locate fire extinguisher cabinets to encase extinguisher as required by NFPA 10 & 101. Fire extinguishers will be provided by the Customer.
2. **Firestopping Penetrations:** Provide all sleeves, caulking, and flashing for firestopping penetrations.

C30 INTERIOR FINISHES

C3010 WALL FINISHES

Unless otherwise noted in the RFP, primary wall finishes shall be painted gypsum wall board. Provide fire resistive construction and finishes for fire separation between areas of the building in accordance with the latest adopted version of the IBC, and NFPA 101.

C3020 FLOOR FINISHES

Provide new flooring materials as required. All flooring materials, adhesives, finish coats, sealers and mortar materials shall meet or exceed EPA requirements for toxic substance content restrictions and air quality requirements; and shall meet or exceed fire protection requirements, such as smoke and flame spread requirements.

1. **Resilient Flooring:** Shall meet or exceed applicable ADA horizontal requirements, and shall be installed per manufacturer's recommended methods and adhesives. Provide manufacturers full line of color and pattern selections, including multi-color patterns.

Resilient vinyl composition tile shall be commercial grade, 0.125 inch gage, FS SS-T-312B (1), Type IV, Comp. 1, Class 2, through pattern.

2. **Wall Base:** Provide solid color preformed rubber or vinyl base for resilient flooring areas.

C3030 CEILING FINISHES

Unless otherwise noted in the room requirements, acoustical ceiling panels shall be 24 inch by 24 inch, with a minimum light reflectance of 0.75, Class A, flame spread 25 or less and smoke development of 50 or less, ASTM E84. Acoustical ceiling panels shall have minimum 60% recycled content and conform to ASTM E1264. Provide tegular edge except as noted.

C3040 PAINTING

All painting and coating materials shall be low VOC, comply with local air quality control laws and regulations; and conform to the Master's Painters Institute's (MPI) *Architectural, Interior Systems Manual* and the MPI's *Maintenance and Repainting Manual* recommendations for paint systems, surface preparation and applications.

Provide minimum of one prime coat and two finish coats. The prime coat shall not be combined with texture or other coatings. Seal and prime all surfaces to cover underlying stains or discoloration that may affect finish paint. Finish coats shall provide full coverage of undercoats and substrates. All wood or metal cased openings, door trims and casings, window trims and casing, and other finish trim shall have semi-gloss paint. All interior walls and ceilings shall have

satin or eggshell finish. For previously painted surfaces, prime all surfaces to ensure compatibility of finish coats. Do not paint prefinished surfaces except as noted.

Provide Institutional Low Odor/Low VOC Latex paint or High Performance Architectural Latex systems as defined and approved by the MPI Systems Manual for the various substrates required to be painted.

Paint/Color Selection: Provide paint systems tested to "Detailed Performance Level" standard as defined by MPI. Paints shall be readily available for purchase in standard colors.

SECTION D. SERVICES

D20 PLUMBING

Wall Penetrations: Piping which penetrates fire rated walls shall be completely sealed to maintain fire resistance integrity as required by Code. Penetrations through walls that are not fire rated shall be adequately supported and sealed. Pipe penetrations through exterior walls shall be sleeved, caulked with weatherproof sealant and provided with finish trim.

D30 HEATING, VENTILATION AND AIR CONDITIONING (HVAC) SYSTEMS:

The HVAC systems shall comply with the latest edition of the International Mechanical Code, International Plumbing Code, ASHRAE Standards, National Electrical Code, National Fire Protection Association Publications, International Building Code, and California Title 24 or ASHRAE 90.1 energy efficiency standards (the more stringent of the two) unless otherwise specified in Part 3. All equipment, appliances, ductwork and accessories shall comply with applicable codes and standards. The Contractor shall certify that the installation is in conformance with the applicable codes and standards at the completion of the contract, prior to final invoice being processed and final acceptance.

- 1. Equipment Clearance:** Provide working space around all equipment. Provide all required fittings, connections and accessories required for a complete and usable system. All equipment shall be installed per the manufacturer's recommendations. Where the word "should" is used in manufacturer's instructions, substitute the word "shall".
- 2. Material and Equipment Qualifications:** All materials and equipment shall have been in satisfactory commercial or industrial use for 2 years prior to the bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been for sale on the commercial market through advertisements, manufacturer's catalogs, or brochures during the 2-year period.
- 3. Motors:** Single-phase fractional-horsepower alternating-current motors shall be high efficiency types corresponding to the applications listed in NEMA MG 11. Select polyphase motors based on high efficiency characteristics relative to the applications as listed in NEMA MG 10. Additionally, all polyphase squirrel-cage medium induction motors with continuous ratings shall meet or exceed energy efficient ratings per Table 12-10 of NEMA MG 1. Provide controllers for 3-phase motors rated 1 HP and above with phase voltage monitors designed to protect motors from phase loss and over/under-voltage. Provide means to prevent automatic restart by a time adjustable restart relay. For packaged equipment, the manufacturer shall provide controllers including the required monitors and timed restart. Provide reduced voltage starters for all motors 25 HP and larger.
- 4. Equipment Support:** Provide housekeeping pads and vibration isolators under all floor-mounted equipment.

5. **Coatings:** When required in Part 3, provide chiller and air handler coils with copper tube/copper fin coil construction or immersion applied, baked phenolic or other approved coating. Field applied coatings are not acceptable. Mechanical equipment casings shall have painted finishes that pass a salt-spray test conducted per ASTM B117 for duration of at least 500 hours.
6. **Acoustical considerations:** Noise levels in all areas served (supply, return, and exhaust) by a mechanical system shall comply with ASHRAE Design Guidelines for HVAC related background sound in rooms as indicated in the lasted ASHRAE Fundamentals Handbook. The RC-rating method shall be utilized.

D3030 COOLING GENERATING SYSTEMS

1. **Direct expansion systems:** Provide units factory assembled, designed, tested, with ducted air distribution and rated in accordance with ARI 210/240 or ARI 340/360. Refrigerant piping size shall be per the manufacturer's recommendations. Insulate refrigerant piping suction lines and condensate drain.
2. **Refrigerants:** The use of Ozone Depleting Substances (ODS) as well as the qualifications and credentials of personnel servicing equipment that contains ODS is restricted. Refrigerants shall have an Ozone Depletion Factor (ODF) of zero.

D3050 TERMINAL AND PACKAGE UNITS

Unit heaters: ANSI Z83.8 and AGA label. Provide with thermostat.

D3060 CONTROLS AND INSTRUMENTATION

General: Provide stand-alone or distributed direct digital controls, as required in Part 3.

D3070 SYSTEMS TESTING AND BALANCING

All HVAC water and air systems, both new and retrofit, shall be TABed in accordance with NEBB or AABC standards. As part of any TAB air balancing effort, acceptable air quantity variations shall be 0 to -10% for exhaust systems and 0 to +10% for supply air systems.

D40 FIRE PROTECTION

Modify existing Automatic Fire Sprinkler systems, Smoke and Heat detection systems, Fire Alarm and Mass Notification systems as required. The work for fire sprinklers, fire alarm, smoke detection, and heat detection shall be provided by contractors licensed to perform such work.

Project Requirements: Prior to the start of design, the Designer of Record shall meet with the Government's Fire Protection Engineer to determine the extent and types of fire protection required.

D4010 FIRE ALARM AND DETECTION

Fire alarm system shall include manual stations, system smoke detectors, duct smoke detectors, heat detectors, audio/visual alarms, connection to basewide fire alarm monitoring, electrical supervision of fire pump controllers, and electrical supervision of all sprinkler system alarm and supervisory devices as required.

D4020 FIRE SUPPRESSION WATER SUPPLY AND EQUIPMENT

The design point of connection to existing water supply shall require the approval of the Contracting Officer. The FPE DOR shall conduct flow tests after contract award prior to any design submissions. Tests shall be coordinated through the Contracting Officer.

D4040 SPRINKLERS

Areas subject to freezing shall be provided with a dry pipe system.

D50 ELECTRICAL

D5010 ELECTRICAL SERVICE & DISTRIBUTION

Provide interior electrical wiring, fixtures, switches, outlets, and apparatus in accordance with applicable codes and standards. The electrical system shall conform to NFPA 70. Power and lighting circuits shall be separate.

1. **Wiring:** All wiring shall be in electrical metal conduits and shall be concealed except in the industrial spaces and at locations indicated in Part 3. No conductors shall be smaller than No. 12 AWG, copper wires. Wiring below slab or underground shall be in Schedule 40 PVC with ground wire. Exposed conduits on the exterior of the building are prohibited. Provide a ground conductor for each circuit; conduits shall not be used for grounding. Use of cable assemblies Types AC, MC, or MI and flat conductors are prohibited. Circuit breakers shall be bolt-on type. Series rated circuit breakers and fusible panelboards shall not be used.
2. **Outlet Circuits:** Lighting and convenience outlets shall be on separate circuits. Location of outlets shall be as required by applicable codes and standards. Provide extra outlets for maintenance and service staffs in spaces such as corridors, hallways and other public spaces as identified below. All exterior outlets shall be on separate circuits, shall be GFI protected, and equipped with a cover to prevent accidental water infiltration into the devices.

In addition to the location requirements specified by NFPA 70, locate general purpose and dedicated outlets in accordance with the following:

- a. Mechanical equipment: Provide receptacle within 25 feet of mechanical equipment on the interior and exterior of buildings.
- b. Office, staff support spaces, and other workstation locations: One receptacle for each workstation with a minimum of one for every 10 feet of wall space. When less than 10 feet of wall at the floor line, provide a minimum of two receptacles spaced appropriately to anticipate furniture relocations. Limit loads to a maximum of four workstations per 20 amp circuit. See Appendix C, Table C1 for workstation load data.
- c. Provide power outlets throughout the building to serve all proposed equipment, including government furnished equipment, and allow for future reconfiguration of equipment layout. Provide power connections to all ancillary office equipment such as printers, faxes, plotters, and shredders. Provide dedicated circuits where warranted.
- d. Provide dedicated receptacles as required throughout the facility for television monitors. These outlets will typically be located at the ceiling level for wall mounted television monitors.
- e. Corridors: One every 50 feet with a minimum of one per corridor.

- f. Space with counter tops: One for every 4 feet of countertop, with a minimum of one outlet. Provide GFI protection of outlets when located within 6 feet of plumbing fixtures.
 - g. Building exterior: One for each wall, GFI protected and weatherproof.
 - h. Kitchen non-residential: One for each 10 feet of wall space at the floor line. Provide GFI protection when located within 6 feet of plumbing fixture.
 - i. All other rooms: One for every 25 feet of wall space at the floor line. When 25 feet or less of wall at the floor line exists in a room, provide a minimum of two receptacles spaced appropriately to anticipate furniture relocations.
 - j. Special purpose receptacles: Designer of Record must coordinate with the user to provide any special purpose outlets required. Provide outlets to allow connection of equipment in special use rooms.
3. **Service Entrance Equipment:** When a switchboard or switchgear is required, the Designer of Record shall utilize UFGS Section 26 23 00, *Switchboards and Switchgear*, for the project specification, and shall submit the edited specification section as a part of the design submittal for the project.

D5020 LIGHTING & BRANCH WIRING

1. **Lighting Fixtures:** All lighting fixtures shall be energy conservation compact fluorescent except where indicated by Part 3.
 - a. **Fluorescent Fixtures for Administrative and Commercial Spaces:** For offices, commercial and administrative spaces and facilities provide high efficiency ballast, and instant or rapid start recessed fluorescent fixtures.
 - b. **Three-Way and Four-Way Switches:** Provide three-way or four-way switching of light fixtures as necessary to facilitate movement between adjacent spaces to allow efficient energy management.

SECTION F. SPECIAL CONSTRUCTION AND DEMOLITION

F20 SELECTIVE BUILDING DEMOLITION

In general terms, demolition work shall include the removal and effective management and disposition of existing construction and or structures. Contractor shall take care to prevent damage to existing utilities and construction that are not scheduled for demolition. If damage occurs, the Contractor shall make repairs to the satisfaction of the Contracting Officer and at no cost to the Government. Comply with local Activity and Installation local requirements regarding demolition and removal. Unless otherwise specified in Part 3, all demolished materials and equipment must be removed from government property in accordance with applicable laws and regulations, including local Activity or Installation regulations. Selling of demolished or salvaged materials and equipment on government properties is prohibited.

Demolition Plan and Environmental Protection Plan: No demolition work shall take place until a Demolition Plan, an Environmental Protection Plan, and a Safety Plan (including Activity Hazard Analysis) have been submitted to, and approved by, the Contracting Officer. The Plans shall take into consideration, and indicate method of removal and disposition of environmentally hazardous materials. Demolition and disposition of hazardous materials must comply with all applicable Local, State, and Federal regulations and laws. If destructive investigation is to occur, the Contracting Officer shall approve a Destructive Investigation Plan.

When hazardous materials such as asbestos, lead paint, PCB and other hazardous materials are involved in the performance of the work, the contractor shall abate, remove and manage the hazardous materials in construction and finish materials such as insulation, flooring, wall materials, ceiling materials, roofing materials, heating, plumbing, ventilation, air conditioning equipment and installations in accordance with National as well as local Environmental Protection Laws and Regulations.

F2020 HAZARDOUS COMPONENT ABATEMENT

1. **Asbestos Materials:** Asbestos shall be removed, transported and managed in accordance with the following regulations: 29 CFR 1926.1101, and 40 CFR 61-Subpart M.

Category I & II Nonfriable: Demolition of Category I & II nonfriable asbestos containing materials (approved to be left in place during building demolition) shall be performed in accordance with 40 CFR 61 – Subpart M.

2. **Paint Containing Lead, Cadmium and Chromium:** Work which requires the disturbance of paint that have been determined to contain all or any of the following: lead, cadmium and chromium must be performed in accordance with: 29 CFR 1926.62, 29 CFR 1926.1126 and 29 CFR 1926.1127.
3. **Mercury & LLR Components:** Work which requires removal of mercury and LLR components shall be performed in accordance with: 29 CFR 1910.1000, 10 CFR 20, and 40 CFR 273.
4. **PCBs:** Work which requires removal of PCB containing components or materials shall be performed in accordance with 29 CFR 1910.1000, 40 CFR 761, and 40 CFR 273.
5. **Hazardous Materials Reporting:**
 - a. **Daily Report:** Notify the Contracting Officer of work involving hazardous materials abatement and removal, including the quantities involved, on daily reports.
 - b. **Hazardous Material Inventory Report:** The Contractor shall provide a list of all hazardous materials used on the site.

SECTION G. BUILDING SITEWORK

G10 SITE PREPARATIONS

1. **General Requirements:** Building site work includes site preparation, site improvements, site civil/mechanical utilities, site electrical utilities, exterior furnishings, landscaping, and irrigation. Provide site work in accordance with UFC 3-200-10N, *Civil Engineering*, which accommodates regional requirements (see paragraph 1-6).
2. **Project Limitations:** Prior to the start of design, the contractor shall determine the exact limit-of-work line for the project periphery, considering items such as, but not limited to, utility work, landscape re-vegetation of disturbed areas, and lay down areas. The Civil Engineer and Landscape Architect of Record shall determine limit-of-work lines. Minimize the impact of construction activity on operations and neighboring facilities.
3. **Geotechnical Data:** A geotechnical engineer shall conduct the subsurface exploration, investigation/evaluation, testing, and analysis that the Designer of Record deems necessary for the design and construction of the proposed facilities, including building pad, structure, pavement

sections, repairs, overlays, stormwater management facilities, utility structure foundations, septic systems, and other features requiring soil support.

G1010 SITE CLEARING

1. **Existing Utilities:** When the Contractor is to work at a site that has existing utilities, the contractor is responsible for coordination with Contracting Officer and utility companies for staking out, capping, connection and relocation of any existing utility systems or traffic interruption. Notify utility locator service for area where Project is located before site clearing.
2. **Interruption:** All interruption to the existing utilities and traffic shall be coordinated with and approved by the Contracting Officer not less than 14 calendar days in advance of such interruption.

G1030 SITE EARTHWORK

The DOR shall utilize UFGS Section 31 23 00.00 20 for the project specification and shall submit the edited section as a part of the design submittal. Perform quality assurance for earthwork in accordance with UFGS Section 31 23 00.00 20. If sheeting/shoring or dewatering is required, the Contractor shall provide a registered Professional Engineer to provide excavation, sheeting, shoring, and dewatering plans and inspection of excavations and soil/groundwater conditions throughout construction. The Engineer shall be responsible for performing pre-construction and periodic site visits throughout construction to assess site conditions. The Engineer, with the concurrence of the contractor and the Contracting Officer, shall update the excavation, sheeting, shoring, and dewatering plans as construction progresses to reflect actual site conditions and shall submit the updated plan and a written report (with professional seal) at least monthly informing the Contractor and the Contracting Officer of the status of the plan and an accounting of Contractor adherence to the plan; specifically addressing any present or potential problems. The Engineer shall be available to meet with the Contracting Officer at any time throughout the contract duration.

G20 SITE IMPROVEMENTS

Provide site improvements as required to make a useable facility that meets functional and operational requirements, incorporates all applicable anti-terrorism, force protection and physical security requirements and blends into the existing environment.

Provide site improvements in conformance with applicable requirements of the Uniform Federal Accessibility Standards.

Performance Verification And Acceptance Testing:

- a. **Subgrade Preparation:** If required by the Designer of Record, perform proof rolling. Proof rolling shall be performed in the presence of the Contracting Officer. Rutting or pumping of material shall be undercut as directed by the Contracting Officer and replaced with satisfactory soil materials as defined by the Geotechnical Engineer.
- b. **Concrete Joint Performance Verification:** Joint sealer that fails to cure properly, or fails to bond to joint walls, or reverts to uncured state or fails in cohesion, or shows excessive air voids, blisters, or has surface defects, swells, or other deficiencies, or is not recessed within indicated tolerances shall be rejected. Remove rejected sealer, re-clean and reseal joints.

**** End of Part 4 ****

**SMALL PROJECT PART 6
ATTACHMENTS**

02/10

1. Record Drawings for Project CP4383R (Repair Steam System Bays “B” – “E”, Building 150 – 2001), NAVFAC Drawings 4447872 – 4447884. These drawings are available, but not included in this Request for Proposal. NOTE: THIS PROJECT WAS NOT BUILT
2. Record Drawings for Project CP8241M (Replace Docks, Ramps, & Steps, Building 150 – 1998), NAVFAC Drawings 4381939 – 4381947. These drawings are available, but not included in this Request for Proposal.
3. Record Drawings for Project CP114R (Sprinkler System Modifications, Building 150 – 1991), NAVFAC Drawings 4207672 – 4207676 and Public Works Sketch 5372. These drawings are available, but not included in this Request for Proposal.
4. Record Drawings for Project NOy-11500 (Addition to Warehouse, Building 150 – 1945), NAVFAC Drawings 398574 – 398579. These drawings are available, but not included in this Request for Proposal.
5. Record Drawing for Project NOy-8670 (Sprinkler System for Quartermaster’s Storehouse, Building 150 – 1944), NAVFAC Drawing 327849. This drawing is available, but not included in this Request for Proposal.
6. Record Drawings for Building Construction (Quartermaster’s Storehouse, Building 150 – 1942), NAVFAC Drawings 302346 – 302358. These drawings are available, but not included in this Request for Proposal.
7. MCAS Cherry Point Fire Department Inspection Report for Building 150 dated February 2, 2011.



USMC Cherry Point Fire Department
Form: 2011

Station	
B 150 Beachey RD Building #150 Cherry Point, NC 28533	Inspected By: Rozier, Rodney W. Inspection Date: 2/2/2011 Authorized Date: 2/3/2011 3:35:52 PM Next Inspection Date:
Contact Name(s): Ervin Mewborn	
Area Inspected	
<input checked="" type="checkbox"/> A representative of the Cherry Point Fire Department recently conducted an inspection. Please review this notice for any violations that may be noted. Corrective action may be required, please refer to the "corrective actions" section for specific instructions The following building/shop/work area was inspected. Station Bldg 150, DLA (GENCO, contractor for DLA).	
NFPA 10 Portable Fire Extinguishers	
<input checked="" type="checkbox"/> 10A Fire extinguisher obstructed or obscured from view. Ref. NFPA 10-1-6 Remove obstructions that are blocking the extinguisher. next to desk adjacent to main entrance/office area.	
NFPA 13 Installation of Sprinkler Systems	
<input checked="" type="checkbox"/> 13D Obstruction below sprinkler heads is over 4ft wide. Submit work order to install sprinkler heads below the obstruction. Computer work station in Wood Shop: 13F Sprinkler head(s) not provided where required. According to NFPA 13 8.5.5.3.1 Sprinklers shall be installed under fixed obstructions over 4 ft (1.2 m) wide. Storage racks have plywood shelving, must be replaced with expanded metal or wire shelf units. Rolled card board tubes blocking sprinkler heads in wood shop area above bulk plywood storage.	
NFPA 70 National Electrical Code	
<input checked="" type="checkbox"/> 70C Improper use or installation of flexible cords. Submit work order for installation of proper wiring. Multiple extension cords ran throughout area adjacent to wood shop to operate computers and equipment.	

<ul style="list-style-type: none"> ☑ 70N Open electrical junction box. Submit work order to have box covered. Above bulk plywood storage area. ☑ 70R Exposed wiring. Submit work order to have this problem corrected. Exit doors 12, 14 & 16. ☑ 70S Improper installation of wiring and equipment. Submit work request to have the proper wiring and equipment installed. Plywood lift in Wood Shop area; power cord taped to floor.
<p>NFPA 80 Fire Doors and Fire Windows</p>
<ul style="list-style-type: none"> ☑ 80F Horizontal/vertical/sliding/rolling door not being tested. Submit work order to have door inspected and tested annually. Throughout facility. NFPA 80: FIRE DOORS AND WINDOWS: 5.2.1* Fire door assemblies shall be inspected and tested not less than annually, and a written record of the inspection shall be signed and kept for inspection by the AHJ.
<p>NFPA 101 Life Safety Code</p>
<ul style="list-style-type: none"> ☑ 101T Holes in walls or ceiling. Submit work order to have holes repaired. Wood shop Break room & office area in Bay B ☑ 101U Other violations. Any other violations found are listed below. Roll up doors do not meet the criteria for an exit door. Exit signs above roll up doors must be removed per NFPA 101.
<p>Corrective Actions</p>
<ul style="list-style-type: none"> ☑ Rozier Corrective action instructions. Corrective action instructions shall be forwarded to rodney.rozier@usmc.mil within ten working days of this notice. Failure to comply will result in further action. If you have any questions or need further assistance please call me at 466-3039 466-5607. Please forward corrective actions/ticket numbers to me ASAP.